U.S. ENVIRONMENTAL PROTECTION AGENCY PROPOSED TIER 2 MOTOR VEHICLE EMISSIONS STANDARDS AND GASOLINE SULFUR CONTROL REQUIREMENTS NOTICE OF PROPOSED RULEMAKING PUBLIC HEARING

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PROCEEDINGS

(10:00 a.m.)

MR. LONG: Good morning. If everybody will find a seat, we'll get started.

My name is Richard Long. I'm the Director of the Air Division for the EPA Region 8 Office here in Denver. I want to welcome everyone to Denver to take part in this important decision that is before the Agency.

First of all, though, I want to assure everyone, for those who have come in to Denver from out of town, you did not wake up and Seattle. This is not March. This is Denver in June. It is supposed to be 80 degrees and sunny. My apologies for the weather. There's not much I can do about that.

I want to turn this over to Margo Oge, who is the head of the Office of Mobile Sources, and she will be chairing this panel today, and taking comments.

Margo?

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MS. OGE: Thank you, Dick. Good morning.

On behalf of the Environmental Protection Agency, I would like to thank you for coming and welcome all of you to today's hearing. Thank you for my tea also. Thank you very much.

We're looking forward to today's set of testimonies. We're looking forward to hearing your views on

a program that we believe is critical to the future of air quality in this country.

My name is Margo Oge. I'm the director of the Office of Mobile Sources with EPA, and I will be serving as your presiding officer for today's hearing.

The proposed regulations we're considering today were announced by President Clinton on May 1, 1999, and they were published in the Federal Register on May 13, 1999.

We believe that this is a historic proposal. This program will achieve a dramatic reduction in air pollution for the 21st century, and we will do it in a most cost effective and flexible way.

We estimate emission reductions of almost 2.2 million nitrogen oxides per year by 2020. This is equivalent of removing 166 million cars from the road.

I want to share with you a number of principles that we followed in developing this proposal. We wanted to meet the air quality needs for the states and the nation as a whole. We wanted to treat autos and fuel as one system. We wanted to bring sport utility vehicles, minivans and pickup trucks in the same standards as those followed by the passenger vehicles. We wanted to have a standard that is fuel neutral, that is, regardless of the fuel used in the car, diesel or gasoline, we wanted to have the same standard.

We wanted to make sure that we don't constrain consumer choice of vehicles or driving styles, either due to cost or technology factors. And we wanted to provide flexibility for industries in how they achieve the standards.

At the same time that we published the Tier 2 standards, we also released an advance notice of proposed rulemaking concerning diesel fuel quality. We're not seeking testimony today on this proposal. We have established a separate docket, and the number is A-99-06 for comments on this advance notice of a proposed rulemaking.

Now, many of you are probably aware of the two recent Court of Appeals decisions regarding EPA's air programs. The first decision found that the Clean Air Act, as applied in setting public health air quality standards for ozone and particulate matter, is unconstitutional as an improper delegation of legislative authority to EPA.

Despite this constitutional ruling, however, the court did not question the science on which EPA relied to develop the public health standards or criticize EPA's decision making process.

We disagree with this decision, and we have recommended to the Department of Justice that they take all necessary judicial steps to overturn this decision.

The second decision stayed the submittal of state plans under the NOx SIP call that were due to the Agency this fall. We have closely reviewed both these decisions and have

concluded that they do not impact the Tier 2 rulemaking.

The Tier 2 proposal remains on strong scientific grounds. It's strong in terms of need, air quality need,

technological feasibility, cost and cost effectiveness.

We believe that the Tier 2 standards as proposed are needed to attain and maintain the one-hour air quality standards. More than 70 million americans are breathing unhealthy air today. This trend will continue unless we take action now. We believe this proposal is technologically feasible, and it is cost effective.

The projected costs of meeting this proposal are about \$100 for cars and \$200 for light duty trucks, and between one and two cents per gallon of gasoline.

Even though our cars and trucks are much cleaner that ever before, they still contribute a large part of our air pollution problems. Americans love to drive, and we're driving more than ever. If we don't act today, the emissions from our cars and light duty trucks, combined with the current levels of sulfur in gasoline, threaten to erode the many air quality gains we have made in recent years.

The Tier 2 emissions standards will reduce significantly the ozone precursors like nitrogen oxides and volatile organics, will reduce particulate emissions, air toxic emissions from these sources, and will help improve visibility. For example, in Denver, the city that we're visiting today, motor vehicles are responsible for almost 40 per cent of the fine particulates in the metropolitan area in Denver.

Today's proposal would improve visibility throughout our communities, particularly here in the west, and in national treasures like the Grand Canyon. A number of western governors noted the importance of controlling mobile sources as part of efforts to improve visibility.

Last June, June 29, 1998, in a joint letter to the Administrator, they states, "The Federal Government must do its part in regulating emissions from mobile sources that contribute to regional haze in these areas," and called on EPA to make a "binding commitment to fully consider the Commission's recommendations related to the federal national mobile source emission control strategies." They specifically recommended the Tier 2 vehicle standards and reduction in gasoline sulfur levels.

The proposal that we're considering today contains two primary elements. First, we have proposed a more protective emissions set of standards for all light-duty cars and light-duty trucks.

The proposed Tier 2 standards would require all vehicles and trucks weighing up to 8,500 pounds to meet a corporate average NOx standard of 0.07 grams per mile. This new standard will result in cards that are 77 per cent

cleaner, and SUVs, minivans and pickup trucks that are as much as 95 per cent cleaner than today's models.

The second main element of the Tier 2 proposal is a nationwide control of sulfur in gasoline. For the first time with this proposal, we are addressing vehicles and fuels as one system. Because sulfur poisons anti-pollution control systems, we are proposing to reduce sulfur levels in gasoline by 90 per cent. With cleaner fuels, not only the Tier 2 vehicles will benefit, but all the existing fleet on the road today will benefit.

Refiners and importers of gasoline would be required to meet a new sulfur limit of 30 parts per million on average beginning in 2004, with a banking and trading program that could introduce cleaner fuel to the marketplace as early as 2000, and could delay implementation of this program as late as 2006. The Tier 2 proposal also includes a set of provisions designed to provide more flexibility to small refiners.

Now, before getting started with today's testimony, I'll take a few minutes to introduce the panel and describe how we will conduct this hearing.

With me, you met Dick Long on the left. Dick is the Director of our Air Program here in Denver.

Next to me is Chet France. Chet is the Director of the Engines and Compliance Group in the Office of Mobile Sources with EPA.

To my right is Mr. Glenn Passavant, and he's the team leader of this effort in many manners, who also has provided assistance to us since he is in the Office of Mobile Sources.

We have received an overwhelming number of requests to testify today, and will do our best to accommodate everyone that has signed or is walking in to talk to us today. We ask witnesses, therefore, to please limit your comments to no more than 10 minutes.

Now, Ted, who is supposed to be sitting right there in the front seat right there, stepped out. He's is going to--Ted, you have to come forward. Ted is going to remind you when you're running out of time. So Ted is a very important person to keep us on time, so please look at him. If you don't, then I'll ask you to please move on and conclude your remarks.

Now, we're conducting this hearing in accordance with Section 307(D)(5) of the Clean Air Act, which requires EPA to provide interested persons with an opportunity for oral presentation of data. The comment period for this proposal will end August 2nd of 1999 for additional written comments.

Now, the hearing will be done informally, and formal rules of evidence will not apply. The presiding

officer, however, is authorized to strike from the record statements which are deemed irrelevant to this hearing, and also to enforce a reasonable limit on the duration of the statement.

We request that the witnesses please state your names and the affiliation prior to making your statements. The EPA panel may ask you questions after you have concluded your statements. And you are reminded, the witnesses are reminded that any false statement or false response to questions may be a violation of law.

If there are any members of the audience who wish to testify who have not already signed up, please submit your name with the receptionist outside, and I will do my best to have you come forward and make your comments.

We require that you refrain from bringing food into the meeting room due to the terms of the contract with this facility.

And finally, if you would like a transcript of this proceeding, you should make arrangements directly with the court reporter at any of the breaks. Also, you should know that this transcript of this public hearing will be available in the docket in two weeks.

Before we begin the testimony, I want to know if there are any questions. If not, I'm going to ask the first group of speakers to come forward. Let me ask Mr. Eric Skelton, Ms. Vickie Patton, Mr. Jim Nokes, Ms. Josephine Cooper, Mr. Gerald Faudel, Mr. Tom Cackette, and also we have with us Dr. Paul Berger, who has asked to testify as soon as possible because he needs to get back to his patients. And if he's here, I would welcome him to come up front. Dr. Paul Berger.

Mr. Eric Skelton, we'll start with you, please.

MR. SKELTON: Good morning.

MS. OGE: Good morning.

MR. SKELTON: My name is Eric Skelton, and I'm the Director of the Spokane County Air Pollution Control Authority in Spokane, Washington, and I'm also President of ALAPCO, which is the Association of Local Air Pollution Control Officials.

I appear here this morning on behalf of ALAPCO, which represents my own agency, as well as more than 165 other local air pollution control agencies across the country, and on behalf of STAPPA, the State and Territorial Air Pollution Program Administrators, which represents the air pollution control agencies in 55 states and territories.

I am pleased to have this opportunity to provide the Association's testimony on the U. S. Environmental Protection Agency's recently proposed Tier 2 Motor Vehicle Emission Standards and program to reduce sulfur in gasoline, as well as on the Agency's advance notice of proposed

rulemaking on diesel fuel.

On behalf of STAPPA and ALAPCO, I would like to commend EPA for its leadership, not only in issuing the Tier 2 and gasoline sulfur proposal, but also for developing such a strong and comprehensive package. We further commend EPA for responsibly taking full advantage of the opportunity to efficiently and cost effectively reduce a wide variety of emissions, for pursuing a systems approach that addresses both fuels and tailpipe emissions, and for engaging in such a thorough, thoughtful and inclusive process to craft this proposal.

We are especially pleased that the proposed Tier 2 and gasoline sulfur programs directly reflect almost every key recommendation made by STAPPA and ALAPCO over the past two years. These programs, which will define our ability to control emissions from cars and light-duty trucks for the next 15 years or so, are of vital importance to our memberships, as we work toward ensuring clean air for our cities, counties and states.

For this reason, in October 1997 and April 1998, our associations adopted, with overwhelming support, resolutions calling for stringent low-sulfur gasoline and Tier 2 programs. Copies of these resolutions are attached to my written statement. We have placed the highest priority on participating in the rule development process and are pleased that EPA has concluded that the most appropriate programs so closely mirror those for which we have advocated.

As the officials with primary responsibility for achieving and maintaining clean, healthful air across the country, state and local air agencies are keenly aware of the need to aggressively pursue emission reductions from all sectors that contribute to our nation's air quality problems. We believe the potential air quality benefits to result from cutting emissions from light-duty vehicles and light-duty trucks and reducing sulfur in gasoline, as the agency has proposed, are tremendous.

These proposed programs will give us substantial and much needed emission reductions and, thereby, allow us to make significant strides in our efforts to deliver and sustain clean air across the country. These emission reductions will play a pivotal role in addressing an array of air quality problems that continue to pose health and welfare risks nationwide.

While much of the debate surrounding the air quality need for Tier 2 and low sulfur gasoline seems to have gravitated toward ozone, it is imperative that we not overlook the many other important air quality benefits of this proposal, to be realized by both non-attainment and attainment areas, east and west.

While this proposal will, indeed, decrease

emissions of hydrocarbons and NOx which, in turn, will lead to reduced levels of ambient ozone, it will also decrease particulate and carbon monoxide emissions, improve visibility, address acid rain problems and reduce greenhouse gases and toxic air pollution.

In addition, the substantial reductions to occur from this proposal will further the objectives of air pollution prevention. It is these many other air quality attributes that make the proposed Tier 2 and gasoline sulfur programs so attractive to areas like Spokane, which, while not in violation of the one-hour ozone standard, is federally designated as non-attainment for carbon monoxide and PM10, due in part to motor vehicle emissions.

Additionally, the proposed programs will achieve important air quality improvements in an extremely cost-effective manner. At approximately \$2,000 per ton of NOx and VOC removed, as estimated by EPA, these programs are at least as cost effective as, if not more cost effective, than most other control measures available to us, and the dividends, as I have mentioned, are huge.

Most of the technological solutions to our air quality problems have already been implemented. Among the remaining tools available to us as regulators are behavior-based approaches to reducing air pollution, such as commute trip reduction programs, ozone action days, and transit incentives.

As a local official, I support these programs from the standpoint of air quality and congestion management. But they are expensive, they take time to implement, and their success hinges on a protracted process of achieving public buy-in.

In contrast, Tier 2 and low sulfur gasoline not only give us two more technology-based approaches to reducing air pollution and meeting federal health-based standards and other air quality goals, but they are also cost effective and essentially invisible to the public.

In addition, Tier 2 and low sulfur gasoline will buy us more time to successfully implement the behavioral approaches in our cities and metropolitan areas.

There are some components of the proposal with which we have concerns, and we will offer recommendations to address these. Nonetheless, STAPPA and ALAPCO congratulate EPA for issuing a proposal that we believe provides a sound framework for environmentally and economically responsible Tier 2 and gasoline sulfur programs.

STAPPA and ALAPCO strongly support what we believe are the cornerstones of the proposed Tier 2 program. Specifically, we are pleased that the proposal cost effectively achieves real world emission reductions from new light-duty vehicles and light-duty trucks; reflects new and

emerging vehicle and emission control technologies currently available and expected to be available in 2004 and beyond; applies to light-duty vehicles and light-duty trucks up to 8,500 pounds, including sport utility vehicles, pickup trucks and vans, beginning in 2004; subjects light-duty trucks up to 8,500 pounds to the same emission standards as cards and lighter trucks, and includes a corporate average NOx standard for all affected vehicles; establishes fuel-neutral standards; includes a more stringent evaporative emissions standard; and extend useful life to 120,000 miles.

These program components are right on target for a truly effective national motor vehicle control program.

We are, however, concerned that several provisions included in the proposal or raised for public comment could significantly undercut the program. Among these concerns are the later compliance deadline of 2009 versus 2007 for larger SUVs, van and trucks, and the notion of a formal technology review of the Tier 2 standards prior to the time that the standards for heavier light-duty trucks take effect.

In addition, while we certainly agree with EPA that there should be some measure of flexibility included in the Tier 2 program, and find some of the approaches provided to be entirely appropriate, we are quite concerned with various aspects of some of the proposed provisions, such as the amount of time allowed for manufacturers to make up for a credit shortfall under the Averaging, Banking and Trading program, and the leniency of some of the emission standard bins.

Finally, given the continuing trend toward heavier light-duty trucks over 8,500 pounds, we encourage EPA to consider applying the Tier-2 standards to those SUVs, pickup trucks and full-size vans weighing up to 10,000 pounds, used predominantly for personal transportation. We will fully articulate all of these concerns in our forthcoming written comments.

As with the Tier 2 program, STAPPA and ALAPCO also believe EPA has done a fine job in establishing the key parameters of the proposed low-sulfur gasoline program. EPA's proposal very appropriately and necessarily establishes uniform, national, year-round standards to sharply reduce sulfur in gasoline; sets a gasoline sulfur standard of 30 parts per million on average, to take effect in 2004, and includes a sulfur cap of 80 parts per million; includes flexibilities to minimize the cost to and compliance burden on affected parties; and provides incentives for refiners to reduce sulfur levels prior to the 2004 effective date.

Last spring, STAPPA and ALAPCO conducted an analysis concluding that a national low sulfur gasoline program of this scope will achieve overnight emission reductions that are equivalent to taking 54 million vehicles

off the road.

Further, throughout the debate surrounding gasoline sulfur, the issue of a national versus regional program has been paramount. We are gratified that EPA has proposed that low sulfur gasoline standards apply uniformly nationwide. This approach will forestall the very real and detrimental aspects of irreversible catalyst poisoning, and will do so in a way that is both inexpensive—

MS. OGE: Mr. Skelton, could you please conclude your remarks?

MR. SKELTON: Okay.

MS. OGE: Thank you.

MR. SKELTON: In conclusion, I just want to reiterate our support for Tier 2 for low sulfur gasoline, and also offer our support for the development of the low sulfur diesel.

MS. OGE: Thank you. Ms. Vickie Patton, good morning. MS. PATTON: Good morning. The Rocky Mountain Office of the Environmental Defense Fund greatly appreciates the opportunity to comment on EPA's proposal to reduce harmful air pollution from cars and trucks. Because of the critical importance of low sulfur fuel to the western United States, our comments will focus on that aspect of EPA's proposed clean air initiative.

Sulfur in fuel creates harmful air pollution in two ways. It produces harmful emissions as a part of the combustion process and it impairs the ability of catalytic converters to remove harmful air pollutants. High sulfur fuel especially impairs the new enhanced catalysts that will be utilized in the next generation of clean cars and trucks. In short, low sulfur fuel poisons clean car technology and is, therefore, a critical ingredient in reducing air pollution from motor vehicles.

The low sulfur fuel standard proposed by EPA would have a variety of critical clean air benefits. For example, national emissions of oxides of nitrogen, or NOx, have increased substantially since the Clean Air Act was first adopted in 1970. NOx air pollution endangers the public health and the public welfare in several ways.

NOx is one of the major contributors to smog, which causes short and long-term lung damage in children, asthmatics and other vulnerable populations. NOx is one of the major contributors to fine particles that are breathed deep into the lungs and cause premature death, hospitalization, and emergency treatment of thousands of elderly. NOx is one of the major contributors to acid rain and ecological damage in our mountains, lakes and streams. NOx contributes to the haze that impairs scenic vistas in western national parts and wilderness areas.

And, in turn, cars and trucks are one of the major

contributors to NOx air pollution. Low sulfur fuel in conjunction with new clean car technology reduces NOx by 130 per cent over current standards. When fully implemented, EPA's clean air initiative would reduce NOx emissions by more than 2 million tons a year.

In Colorado, the NOx reduction benefits of low sulfur fuel are equivalent to removing approximately 900,000 vehicles from the road, and more than half a million from the Denver metropolitan area alone. The benefits are similarly impressive elsewhere in the West.

Low sulfur fuel is also necessary to reduce other harmful pollutants such as particulate matter, volatile organics, and toxic air pollution. EPA's own cumulative exposure project indicates that millions of Americans are exposed to unreasonable cancer risks from air toxics, and that motor vehicles are a principal contributor to this cancer risk. This important data, which is now in the public domain at www.scorecard, org--that's www.scorecard.org, indicates that vast numbers of people in the Rocky Mountain West are exposed to cancer risk from air toxics that seriously exceed the risk level acceptable under the Clean Air act.

Two and a half million people in Colorado are exposed to unacceptable cancer risks from air toxics. 1.4 million people in Utah, 673,000 people in Idaho, 439,000 people in Montana and over 200,000 people in Wyoming all are exposed to unacceptable cancer risks from air toxics. In each of these areas, emissions from cars and trucks are a major contributor to the harmful pollution levels.

In the first year of implementation in the West, a 30 parts per million low sulfur fuel requirement would realize an additional 115,000 ton reduction in smog-forming pollution, and an addition 11,000 ton reduction in the fine particles that threaten public health and obscure western vistas. These tremendous emission reductions are above and beyond the weaker sulfur standard advanced by the refining industry. We urge EPA to finalize a strong low sulfur fuel standard that will deliver these important air quality benefits to the Western United States.

The refining industry is pressing for a regional variance under EPA's low sulfur fuel proposal that would allow dirtier gasoline in the West. The refining industry argues that western air quality does not warrant the protection afforded by low sulfur fuel because the air quality problems here are not as severe as California or the Northeast. The Environmental Defense Fund vigorously disagrees with this claim.

Those of us who live here and breathe the air find this argument insulting and are deeply dismayed that the refining industry would relegate us and our children to second class citizens.

We have a variety of air quality problems in the West. Further, one of the very reasons we choose to live here and raise our families here is because we highly value our air quality. We do not want Denver or other communities in the West to become like California, New York or New Jersey. It is ludicrous to suggest that we should wait until our air quality problems are like those of California before we take protective steps.

If we can draw any lessons from the serious air quality problems in the East and in California, it is that preventing air pollution problems is eminently more environmentally and economically sensible than waiting until the problems become overwhelming. We urge EPA to have the vision to protect western air quality now and avoid the short-sighted policies that allowed pervasive and persistent pollution problems to occur in other regions of the country.

The body of technical evidence in the rulemaking record demonstrates that low sulfur fuel seriously impairs clean vehicle technology. This evidence alone is ample basis for EPA to require low sulfur fuel. The additional information about the broad public health and environmental benefits of low sulfur fuel makes an irrefutable case.

Nevertheless, the refining industry is seeking to undermine EPA's proposal for cleaner, healthier air in the West, claiming that since most areas in the West meet smog standards, the reductions aren't warranted. This claim fundamentally misapprehends the scope of EPA's regulatory responsibility, which is to protect public health and the environment.

The refineries' narrow view of the law does not account for the many harmful effects of sulfur in fuel, including its contribution to the "brown cloud" that pollutes nearly ever large western city, the toxic air pollution from cars and trucks that expose westerners to high risk of cancer, the acid ran that threatens aquatic ecosystems at Rocky Mountain National Park and at other areas in the West, and the haze that cuts visibility in our revered national parks and wilderness areas to a fraction of their natural conditions.

The refining industry seeks to derail EPA's rulemaking, claiming that EPA should reconsider its action in light of the recent judicial opinion on the national ambient air quality standards. First, we believe that this court decision will be reversed. It is based on an anachronistic legal doctrine that repeatedly, without exception, has been rejected by the United States Supreme Court since the 1930s.

Moreover, this is the same claim that the refining industry unsuccessfully invoked in the 1970s to derail EPA's initiative to reduce the lead in gasoline. The full D.C.

Circuit rejected the claim that EPA's authority to regulate lead in gasoline hinged on issuing national ambient air quality standards for lead.

EPA's proposal has provided substantial compliance flexibility for refineries to achieve the sulfur reductions in fuel. Under EPA's proposal, all refineries are allowed to "bank" early or excess reductions. This program extends the amount of time over which refineries can prepare for compliance, and provides additional compliance options.

In addition, EPA proposes to allow small refiners, described as those having 1,500 employees or less, up to an additional six years to comply. Thus, small refiners would have up to a decade, until January 1, 2010, to fully comply. This protracted implementation schedule will give small refineries considerable flexibility by allowing them to manage their compliance costs over a long time horizon.

We urge EPA to reject the calls by the refining industry to further expand the already generous definition of "small." EPA should firmly turn back attempts to create a broad compliance loophole.

A recent study by MathPro, an industry consulting firm, refutes claims by refineries that a requirement to reduce low sulfur fuel would cause some refineries in the West to shut down, and disrupt fuel supplied. MathPro's March 1999 study of refineries in the Rocky Mountain West found that a low sulfur fuel requirement is unlikely to cause refinery closures. The study found that the capital costs associated with compliance are small relative to the refineries' average cash operating margins.

The study indicated that the profit margins in this region of the country are higher than other parts of the country because geography and other considerations protect refineries from outside competition. Further, the study found that even if there were closures, fuel reductions would be offset by decreased export of supplies outside the region, by increased supplies from elsewhere in the country, and by increased production. Currently, approximately 8 per cent of the gasoline produced in the Rocky Mountain region is exported elsewhere in the country. Further, all of these findings by the industry consulting firm were made without taking into account the significant compliance flexibility EPA included in its proposal.

The support for low sulfur fuel in the West is vast and varied. The major automobile manufacturers support nationwide low sulfur fuel. The association of state and local air pollution control officials supports nationwide low sulfur fuel. Numerous public health and environmental organizations representing millions of Americans support low sulfur fuel in the West.

California began requiring low sulfur gasoline in

1996. Low sulfur fuel is being implemented in countries in Asia, Europe and Canada. In January of this year, British Petroleum/Amoco announced a program to voluntarily introduce low sulfur fuel in 40 cities worldwide. We respectfully request that western refineries put aside the strong-arm tactics of their Washington, D.C. lobbyists, put aside the calls to delay this important clean air initiative, and instead, become industry leaders, not laggers, in implementing low sulfur fuel.

It is widely recognized that eliminating the lead from gasoline was one of the most important public health and environmental developments in the last 30 years. If we allowed oil refineries to set national policy, our children would still be breathing harmful levels of lead.

In the 1970s, we got the lead out of gasoline. Now it is time to get the sulfur out. At a few cents per gallon, low sulfur fuel is a sound, cost-effective investment that will realize tremendous health and environmental benefits.

The number of miles Americans drive in cars and trucks has increased 127 per cent since the adoption of the Clean Air Act in 1970. Those of us who live in the western United States routinely witness the consequences of explosive growth. In Colorado alone, drivers travel over 36 billion miles per year. This dramatic increase in our driving activity necessitates increasingly cleaner vehicles and fuels.

Western air quality is a precious, valuable resource to those of us who live in the Rocky Mountain West. We respectfully request EPG to finalize a strong, nationwide low sulfur fuel standard along with enhanced tailpipe standards, and to act without delay.

Thank you very much.

 MS. OGE: Thank you. Ms. Josephine Cooper, good morning.

MS. COOPER: Good morning. I'm Jo Cooper, President of the Alliance of Automobile Manufacturers, a coalition of automobile and light-truck manufacturers, which include BMW, Daimler-Chrysler, Fiat, Ford, General Motors, Mazda, Nissan, Toyota, Volvo and Volkswagen, with more than 642,000 employees in the U. S., 255 manufacturing facilities in 33 states. Our members are responsible for more than 90 per cent of U. S. vehicle sales.

The automobile manufacturing industry has done more than almost any industry in reducing emissions, and we're very proud of our record. Our commitment is evidence in our voluntary initiative, the National Low Emissions Vehicle program, where we're already producing cleaner vehicles than EPA could have required by law, and sooner.

The auto makers are stepping up to the plate on the Tier 2 program to achieve the goals EPA has laid out.

However, the auto makers cannot do it alone. Much cleaner fuels are also needed to make the program work. EPA, we believe, has an opportunity to clear a path for future advanced technology vehicles, and the ultra clean fuels needed to power them.

The Alliance fully supports the air quality goals of this rulemaking. In fact, the Alliance put forward a proposal that can achieve even greater emission reductions than EPA's proposal. We're very close on most issues. Our proposal will propel us into the next century with the cleanest fleet of vehicles in the world, further reducing emissions from both passenger cars and light-duty trucks to near negligible levels.

Like EPA, the Alliance proposal goes beyond proven technology. It breaks new ground by requiring that cars and light trucks meet the same average NOx levels, and assures significant reductions in NOx emissions, more than would be achieved with the EPA proposal.

This is not a proposal that says it can't be done, or that asks for a free ride. It is a robust proposal that recognizes our industry's important role and responsibility in helping the U. S. reach its clean air goals. We don't yet know how we will reach the goals that we set for ourselves in our own proposal, but we are prepared to take on the challenge. Can do is our attitude.

I want to stress some key elements of our proposal, elements that must not get lost in the shuffle of the rulemaking, elements necessary for Tier 2 to be successful.

First, improved fuels including near zero sulfur will be needed to meet the clean air goals. Fuels and autos operate as one system. Near zero sulfur fuels are needed to enable the introduction of technology that is going to be required to meet the tough new standards.

It makes little sense to mandate the production of world-class vehicles and then run them on second-class fuels. We applaud EPA's proposed reduction in fuel sulfur levels to an average of 30 parts per million as a good first step toward the fuel quality we need to reach the clean air goals. 30 parts per million is the sulfur level that California has required since 1996. Clearly, the expansion of low sulfur fuel from a California-only program to a nationwide program is long overdue, along with California style volatility control.

However, it's not enough to stop there at 30 parts per million. On the vehicle side, the Tier 2 rule is an aggressive new program of technology-forcing standards comparable to those that California just adopted late in 1998. Before this year is out, it appears that California will be taking another major step toward near zero sulfur fuels to accompany its aggressive vehicle standards.

We need to take this critical second step at the federal level as well, recognizing that 30 parts per million sulfur is not an end point, but rather a stepping stone on the way to near zero sulfur fuel.

Removing sulfur is both feasible and affordable. The technology for sulfur removal is readily available and is in widespread use in California, Japan, Europe and other parts of the world. Recent announcements by ARCO, Tosco, and BP Amoco show that members of the refining industry are moving toward low sulfur fuels voluntarily. The evidence indicates that the Alliance's proposal of near zero sulfur levels can be achieved for a very modest cost, however, recognizing the special circumstances that some small refiners may face.

We need to get the sulfur out nationwide. Simply put, sulfur is the lead of the Nineties because of the way it poisons the catalyst. Auto/Oil studies have shown that catalysts subjected to high sulfur fuel experience a loss of effectiveness that cannot be recovered even after operation on low sulfur fuels. In other words, the benefits are cancelled out. Even the reduction in catalyst efficiency caused by an increase in gasoline sulfur from 5 to 30 parts per million can lead to a doubling in exhaust emissions, a major change.

That's why a so-called regional fuel program is unworkable, because vehicles travelling from a low sulfur region into a high region will experience an unavoidable degradation in the performance of their emission control systems.

Sulfur removal is an essential enabler for new emissions control hardware and new powertrain systems. Emission technologies such as NOx traps may enable advanced technology vehicles to achieve significant improvements in fuel economy. Fuel cell vehicles may attain the as-yet elusive goal of zero emissions that may appeal to a wide market. These and other promising technologies to require near zero fuel are a necessity. We can either put our heads in the sand and ignore this need for near zero sulfur fuel, or we can adopt regulations now to allow these technologies to begin to appear in the marketplace.

Another important point. Auto makers need enough flexibility in the rule timeline to allow for the invention of the technologies necessary to make EPA's standards a reality. The Alliance proposal agrees with EPA on the endpoint of .07 grams per mile NOx fleet emission averages for both passenger cars and light trucks. Getting there will take time, and require us to clear a number of technological hurdles.

The introduction of Tier 2 standards should be accomplished in a two-phased approach set out in the Alliance

proposal, one round of emission reduction in 2004, and even more aggressive reductions starting in 2008, when hopefully near zero sulfur fuels would be in place.

A third key point. An independent third-party feasibility study in 2004 is needed to make sure we're headed in the right direction, and we can achieve the goals that EPA sets. The study should be conducted by mutually agreed upon experts to establish the feasibility of the second wave of emission standards, based on the following four items. One, five parts per million maximum sulfur fuels for both gas and diesel engines; standard feasible for lean-burn technologies, both gas and diesel; standards that pose no anti-competitive impact; and standards that are cost-effective and affordable.

If major unexpected problems are encountered along the way, the review process will give EPA an opportunity to make mid-point corrections if necessary. None of us, not the EPA nor the auto industry, can foretell the future and know what problems may develop. With such a far reaching technology-forcing standard, if development is on track to meet the Tier 2 standards and we conduct the review, the review will confirm the findings and the process will move along as planned.

Last point. We want to ensure that the final Tier 2 rule continues to foster not freeze out advanced technologies. The government/industry Partnership for a New Generation of Vehicles has determined that four-stroke direct injection is the most promising near-term technology for meeting dramatically increased fuel economy within the next ten years. EPA has concurred with this.

These lean-burn technologies, however, post formidable emission control challenges. Today's catalytic converters are extremely sensitive to the fuel required to power them, and unless the EPA allows some flexibility in the bins, these vehicles will not be able to be experimented with and put on the market. The catalysts obviously are very sensitive to sulfur. EPA can enhance the flexibility in Tier 2 without incurring any loss in clean air benefits whatsoever.

In conclusion, we fully support EPA's goals. As our industry steps up to the plate with cleaner vehicles, we need our colleagues in the oil industry to do their part by providing cleaner and cleaner fuels. Only by providing world-class vehicles with world-class fuels can we realize our full potential and ensure that future generations will have not only the cleanest possible air, but also robust transportation and energy industries primed to compete in the 21st century.

MS. OGE: Thank you. Mr. Jim Nokes, good morning. MR. NOKES: Good morning. Thanks for the opportunity to present Conoco's views on EPA's Tier 2 proposal. I'm Jim

Nokes, and I'm the President of Conoco's North American Refining and Marketing Operations. We market in 21 states, primarily in the Rockies, midcontinent and the Southeast, and we have four U. S. refineries, Colorado, Montana, Oklahoma and Louisiana.

Conoco really has a long-standing commitment to protect the environment in which we operate. We really point with no small amount of pride to the fact that we have exclusively double hole tankers in our ocean going tanker fleet. We've had zero significant environmental incidents in the last two years. And our cooperative efforts with agencies around the world we've used to address environmental concerns.

Today, my comments are largely directed to Conoco's perspective of sustainable development. And in this regard, we strive to provide cost effective energy to support economies all over the world, and in that way, in a way that balances the needs of all stakeholders, preserves the environment, and is financially sound.

In deciding how you will proceed with Tier 2, we ask you to please keep in mind the following points from the perspective of sustainable development. Conoco does not believe EPA's national "one size fits all" approach is balanced enough to really achieve the necessary reduction in emissions at the lowest possible cost to the public. I know there are many here who believe a national standard is necessary on the basis that fuels with varying sulfur content degrade the catalyst in the vehicle emission control systems.

However, this subject has been a matter of considerable research, and the results of that research show that this is not the case. The effects of sulfur on catalyst systems are largely reversible, allowing for a regional approach to be highly effective.

Also, imposing the same stringent sulfur reductions everywhere, essentially requiring California style gasoline from coast to coast, means that millions of people will pay extra for fuels designed that would give them what they already have, which is clean air. While higher fuel prices may not be a severe burden to many, it is to some of our customers, those particularly on fixed and low incomes.

Really, additionally, there are dark clouds on the horizon for the refining industry, especially smaller, less complex refineries, such as Conoco's refinery here in Denver. The refineries that are small have less capability to generate large capital investments that will be required to meet regulatory requirements. EPA's Tier 2 proposal would further weaken those small refineries, forcing them to close. In some cases, the communities they serve would pay the price in lost taxes, economic base and payrolls.

As everyone knows, the U. S. refining industry has

been running virtually at capacity, and higher refinery runs will probably be needed to meet public demand for the foreseeable future. Any refinery closures will make it more difficult for our industry to adjust to supply disruptions, like those recently experienced in California. Tier 2 will further weaken the U. S. refining industry and ultimately require higher imports of refined products, resulting in higher prices and possible shortages.

It's important that we remember Tier 2 is not the only regulatory issue facing the refining industry today. There are a number of regulations and proposals that are equally onerous for the industry. The cumulative effect of these proposed regulations, if they are not implemented in the most cost effective manner and focused on providing realistically needed benefits, will jeopardize the long-term sustainability of many of our refineries.

We also oppose the EPA's decision to base its cost effectiveness evaluations on new but unproven desulfurization technology. The industry needs, and in fact deserves, the chance to fully evaluate which technology is best, and achieve the desired goals before making our investment decisions.

If you stick with the proposed timetable, the industry will be forced to choose, choose between unproven but promising technology, which may not work, or proven but higher cost technology, which we already use. Clearly, the choices have a negative supplier cost implication in either case.

Additionally, the uncertainties of new technology and the need to generate credits for banking strongly supports pushing the deadline of 2004 back. We appreciate the EPA's efforts to provide flexibility in banking and trading, but for your efforts to be truly effective, more time and different thresholds are needed.

Finally, I want everyone to understand that I'm not here just simply to say no today, but I must repeat that we don't believe the proposed "one size fits all" approach is in the best interests of the public.

Conoco supports efforts to bring all areas of the nation into compliance with national air quality standards, and we support lower sulfur gasoline in areas where it's needed to help meet those standards. In fact, the average sulfur level in Conoco gasoline is 150 parts per million in the Rockies, and under 200 parts per million for our overall system. These levels compare to a national average of around 330 parts per million.

It really is gratifying that reformulated fuels and an improved vehicle emission systems have contributed greatly to the improvement in the air quality in many areas of the country over the past few years. But it's the non-attainment regions that really require special attention. In contrast to the proposed Tier 2 rule, we believe API's regional proposal would generate meaningful improvements in air quality in the most cost effective manner.

I really can't help but believe that if the same industry controlled the production of motor fuels and vehicles, the more cost effective method of achieving Tier 2 standards would be possible.

In closing, it's Conoco's hope that the recent PM and ozone court decision, which we believe undermines the justification of the current Tier 2 proposal, provides an opportunity for EPA to reconsider the API regional plan.

Thank you.

MS. OGE: Thank you. I'd like to ask Dr. Berger to give us his statement at this time, since you have to go back to the hospital. So we'll make some time for you. Good morning.

DR. BERGER: Good morning. Thanks for allowing me to step in here. I do have to get back to my hospital and my patients in Boulder County. So thanks for letting me in here.

My name is Paul Berger. I'm a family practitioner from Boulder, Colorado. I work at Boulder Community Hospital and Avista Hospital. And I was asked by COPERG actually to come today to speak about if there's any connection between air pollution and health.

As we were discussing whether I could come in here today, I had jury duty as well this morning, they mentioned to me that SUVs, one of the topics of today was that SUVs had some exemption from some of the standards for auto emissions, and I thought oh, my God, I have an SUV. I had no idea that my automobile was exempt from the standards that all the other cars on the road had to live up to. Frankly, that was embarrassing. And I found out today that there was some chance that I might be able to retrofit my automobile and that it might be relatively inexpensive, so I'm going to start looking around and see if I can do that this afternoon.

The reason it's so important to me is because of my patients. And my wife is not my patient, but she is an asthmatic and I've sat up with her several nights in the last couple of years wondering if I was going to need to take her to the emergency room. And what I wanted to point out here today is that this occurs more on high pollution days.

Now, all through medical school and residency and training, and even now in my practice when we go to continuing medical education, pulmonologists talk to us on a regular basis about this connection, so this information is not new. We have known for probably 20, 30 or 100 years that air pollution causes more respiratory illness. I don't know why it's taken us this long to work on some of these issues,

but I know we have been making some strides in the last 30 years.

So I don't have the first-hand references, the original studies, I haven't looked for them recently, but I can tell you that the pulmonologists and the allergists talk to us on a regular basis about how important it is to keep your asthmatic and emphysematous patients indoors on high pollution days near the air purifier, near the humidifier.

There are other causes of asthma and emphysema. We need to get people to stop smoking. And indoor pollution is a problem. But if there is something we can do, then I think we need to be doing it immediately. And when there's a question of how quickly we can make these changes, I can't speak to how quickly an industry can make a huge change, but I sure wish it was done yesterday, because we've known this for a long time.

I guess one more medical aspect I'd like to bring up is that I have probably 200 patients with pulmonary diseases, and I see them a lot more on high pollution days, and sometimes they come in for a physical exam and it happens to be a high pollution day. Well, they ask me if I can spend an extra few minutes talking about their asthma because they're having a really tough time. And I don't know how many people here have respiratory diseases, but when you're having an asthma exacerbation, you don't know if you're going to be alive in the next ten minutes.

One of my staff members had a severe attack just a few weeks ago. Frankly, I don't know if that was a high pollution day, but it sure was scary to watch her. And on high pollution days, I see a lot more of these patients, and that's what the pulmonologists and the allergists tell us as well.

So I guess that's all I have to say.

MS. OGE: Thank you. Dr. Berger, you made a statement that SUVs are exempted from emission standards. That's not the case. I just wanted to clarify it for the record. SUVs do meet the emission standards, tailpipe standards, but they are less stringent than passenger cars.

DR. BERGER: Yes, that's what I meant to say.

MS. OGE: Thank you for coming to share your views with us this morning. Mr. Gerald Faudel, good morning.

MR. FAUDEL: Good morning. My name is Gerald Faudel, and I'm vice-president of Frontier Oil Corporation, a small business independent oil refinery. I don't happen to own an SUV.

I wanted to thank you for the opportunity to provide these comments regarding the proposed Tier 2 gasoline sulfur regulations, and I would also like to again express Frontier's appreciation for your agency's interest in and consideration of the small business oil refineries that will

be most dramatically affected by these rules, and to welcome back those of you who, as part of this rulemaking last year, took the time to visit us in Cheyenne, Wyoming and experience first-hand the many differences between a small business refiner and the huge multi-national companies that most of us think of when one mentions the oil industry.

As a result of your hard work and concern, I think the agency's small business advocacy panel recommendations are both environmentally sound and yet fair and equitable to the small and large businesses alike.

Congress determined that the Small Business Regulatory Enforcement and Fairness Act of 1996 was needed in part since, "small businesses bear a disproportionate share of regulatory costs and burdens," and that the, "fundamental changes that are needed in the regulatory and enforcement culture of federal agencies to make agencies more responsive to small businesses can be made without compromising the statutory missions of these agencies.

This agency has demonstrated dedication to the SBREFA process and the resulting small business accommodations proposed by the Tier 2 SBREFA panel that are incorporated in this rulemaking are evidence not only of your appreciation with regulatory problems small businesses face, but more importantly, your willingness to work hard to find a way to be more responsive to the needs of small business without compromising your statutory mission as requested by Congress.

We can't speak to the success of other agency's SBREFA panels, but this one may give all of our country's small businesses reassurance that the process really does work as Congress intended. No one, however, should think that the small refinery accommodations as proposed in this rulemaking somehow exempt small entities from the national standards or provide loopholes that could lessen the environmental benefits that the agencies seek. Nothing could be further from the truth.

For many small refiners, compliance with the proposed rule will be difficult and costly. Frontier estimated that it will cost approximately \$10 million for us to meet our 2004 proposed standard. While this may not seem like much to an Exxon, a Sun, a Tosco or a Marathon, for a small independent like Frontier, achieving the proposed limits, even within the small refiner time schedule, will be a formidable task as we compete for engineering and design firms, construction contractors, and the capital needed to fund the refinery modifications. We have estimated the 2008 proposed target of 30 parts per million sulfur will cost Frontier alone over 90 million additional dollars to reach.

Obviously, they must find ways to reduce that amount if they are to survive beyond 2008. Even with the

small business accommodations, this rule will be hard, perhaps unnecessarily hard, on many individual refiners and on our industry. Without the small business accommodations that you have proposed, many small refiners, including Frontier, would likely not survive beyond 2004.

The continued viability of the small refiner sector is, however, dependent not only on the promulgation of the proposed small refiner accommodations, but also on the successful commercialization of new, more cost effective gasoline de-sulfurization technologies, couple with a very cautious and well reasoned approach to future regulatory burdens, such as additional diesel de-sulfurization. Although a widespread failure of this nation's small refiners might benefit those of our competitors that have voiced their opposition to the small business accommodations you have proposed, the effects would be just the opposite for the American consumer, as we have recently seen in California.

It is often said that California is the bellwether for the nation. Perhaps it is time to look at the California condition as more of an early warning system than as a harbinger of the fate that the rest of the nation is destined to suffer. We can learn from their mistakes.

Senator Barbara Bottzer of California stated in a recent letter to FTC Chairman Robert Brotofsky, "In the past four weeks, gasoline prices have increased more than 50 per cent at some Bay area outlets. In other areas of California, reports of 33 per cent increases are commonplace. While external events have certainly contributed to these price increases, I believe their effects have been magnified and exaggerated by the lack of fair competition in the California marketplace." Senator Bottzer goes on to say, "Ensuring the survival of independent competition to the big oil companies will help ensure that prices do not rise unfairly."

Frontier believes that the small accommodations proposed in the Tier 2 rulemaking are designed to help ensure survival, and will go far in protecting the rest of the nation from some of the problems California is experiencing as a result of the demise of that state's small refining community.

I encourage you to hold fast to your principles and your responsibilities, and finalize the small business refiner accommodations as recommended by the panel if the proposed national program and limits are promulgated.

I will be less than honest, however, if I didn't tell you that Frontier remains thoroughly unconvinced that a national gasoline sulfur standard is the most cost effective way to address the localized air quality concerns for the northeastern and Gulf Coast states, particularly since the consumers in the western states will be forced to bear larger fuel cost increases than those in the targeted poor air

quality states.

The Rocky Mountain region of our country is an expansive, relatively sparsely populated area that has been traditionally served in large part by small often independently owned oil refineries. It is a region that has few air quality problems, and virtually no areas that are in non-attainment with the national ambient air quality standard for ozone, the primary target of the agency's Tier 2 program.

The western region is also an area where people drive more than the national average due to the greater distances between population centers and, therefore, consume more fuel per capita than the national average.

To illustrate this concern and its relevance, the most recent American Automobile Manufacturing Association data shows that the average licensed driver in Maryland travels 13,000 miles annually by car, and the Virginia driver, 14,500 miles annual, for an average of about 13,800 for these two neighboring states in the northeast. By contrast, the average licensed driver in Wyoming drives his automobile 19,332 miles per year, or 40 per cent more miles and, therefore, needing 40 per cent more fuel per licensed driver than his counterpart in those eastern ozone non-attainment regions.

Not only must consumers in this region use more gasoline due to our geography, but if these national proposed standards are finalized, Rocky Mountain drivers will be forced to absorb a higher per gallon increase in cost than the rest of the country due to the higher costs that our regional refineries will incur to comply.

Even the auto industry's paid consultant, MathPro, recently concluded that the gasoline de-sulfurization costs in the Rocky Mountain region would be two to three times the per gallon costs that the EPA has estimated for the rest of the nation--two to three times.

As a consequence of the greater regional fuel costs and greater consumption, any increase in the costs of fuel resulting from a national gasoline sulfur standard will impact the consumers in these western regions to a much greater extent than it will impact those consumers living in the more concentrated areas of our nation where the air quality problems targeted by the Tier 2 standards actually exist.

We continue to believe it may be more cost effective for the agency to tax the automobile manufacturing industry with the development of automobile emission control systems that offer greater fuel sulfur tolerance. This can likely be achieved by using dual catalysts, close coupling catalyst systems to engines, or developing catalytic systems that will routinely regenerate themselves by known mechanisms, such as periodic fuel rich operation.

We do not doubt that the auto industry when they say that they have failed to find a sulfur tolerant emission control system. What they don't say is that they haven't spent a whole lot of time looking.

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In a report prepared for the EPA by Energy and Environmental Analysis, EEA, in 1997, and entitled "Benefits and Costs of Potential Tier 2 Emission Reduction Technologies, " the agency contractor states, "Despite advances in the understanding of fuel sulfur impacts and efforts by catalyst manufacturers to design systems more tolerant to fuel sulfur, it is not apparent that the auto industry has undertaken a dedicated effort to evaluate technology responses with the potential to alleviate the emission impacts of high sulfur fuels. For example, EEA was unable to find any research papers investigating the potential of addressing fuel sulfur through engine based technology advancement. Can fuel sulfur sensing and feedback systems be used to tailor engine operation or emission control systems performance in accordance with end use fuel properties? Or can active systems be designed which respond to sulfur driven catalyst de-activation by periodically creating the necessary high temperature conditions necessary to reverse or minimize sulfur poisoning effects, similar to particulate generation systems. Research in such areas is conspicuously lacking from the considerable sulfur studies undertaken over the last several years. And without such research, it will be very difficult to gain a proper perspective on alternatives to or the cost effectiveness of automotive fuel de-sulfurization."

Considering the substantial costs associated with the Tier 2 program to the consumer, and the devastating impacts such costs may present to the many small and independent domestic refiners, it would seem only prudent that the agency should demand the development of this important feasibility and cost information that its own contractor has described as both "conspicuously lacking and necessary to gain a proper perspective on significant alternatives to or the cost effectiveness of automobile fuel de-sulfurization."

Thank you very much for your time, and welcome back to Denver, those of you who came to Cheyenne. Thank you.

MS. OGE: Thank you. Mr. Cackette, good morning.

MR. CACKETTE: I have some overheads here.

MS. OGE: We're not going to subtract time from you when you're setting this, so you'll still have ten minutes.

MR. CACKETTE: Thank you for inviting me here today. I want to start off by letting everyone know what California's interest is in these associated rulemakings.

First of all, our greatest interest is in the diesel fuel ANPRM, and there are a couple reasons for that.

One is that we believe there's a strong need for nationwide consistent low sulfur diesel fuel standards to allow the enablement of dense after treatment for diesels, and not just for diesel passenger cars and SUVs that are coming into the marketplace, but for diesel trucks, heavy trucks, which don't get much focus in this rulemaking discussion.

Second of all, I want to point out that this alone could probably provide more emission reduction than all the other aspects of the proposal tied together. So it's of great concern, and we certainly don't want to see it on the back burner because it's at an earlier stage of development in the rulemaking process.

Second of all, we are interested in the Tier 2 standards, because about 20 per cent of the cars that end up in California's roads end up being registered in California, were originally purchased outside of our state, and so they don't meet our more stringent emission standards. So we benefit by national standards.

And finally, on reformulated gasoline, we have it, and all we wanted to do there is just share a couple of thoughts on the experience that we've had.

Our air quality needs are very large, as you know, especially in the Los Angeles area, and we've concluded that we need about 70 to 90 per cent lower NOx and PM emissions from heavy duty trucks. Your proposal is correct to focus on low sulfur. It's clearly the fuel parameter that is the most important one to achieve these air quality needs.

The emerging after-treatment technologies we think should define what the allowable sulfur level is, and I think the comprehensive report by NICA, which outlines the emerging technologies and what the impacts of sulfur are on those, dictates that the standard be set nationwide consistently at least no more than 30 parts per million sulfur, and perhaps lower for some of the more promising high efficiency aftertreatment technologies.

And the other factor here is that we need to do something about the off-road fuels. Sulfur level is just inordinately high in those, and it affects the availability of technologies, both after-treatment and perhaps other more common technologies emerging and transferring from the trucks to the off-road engines.

I have a couple of slides just to illustrate a few of these points. As to how important the diesel fuel issue is, this just simply shows what the NOx emissions are from heavy duty diesel vehicles in Greater Los Angeles compared to light-duty vehicles in the absence of LEV 2, which would be in the absence of Tier 2 in your case. You can see there's greater emissions from them, and so that's where the focus I think has to be on diesel fuel.

Next one just shows what we've accomplished with

our reformulated fuels in California, and you can see the points we wanted to make is that we're already down about 100 ppm, but we need to go lower, but we simply can't do that on our own because diesel trucks and much large off-road equipment is used in interstate commerce. And if we're going to have after-treatment on this equipment and it gets poisoned every time it's outside of California, it's simply not going to work, and the levels of fuel sulfur in current on-road fuel and especially in off-road fuel are far in excess of what's acceptable for enabling these new technologies.

To summarize the benefits of low sulfur fuel, you get direct reductions in sulfur and sulfate formation, it directly reduces the particulate emissions from diesel engines. It will preserve the important agreement and rulemaking that you adopted for off-road equipment, which we call the Tier 3 standards which go into effect mid next decade. And if these standards are going to use the transfer technology from on-road trucks, that 3,300 parts per million sulfur is a major barrier to that use.

And, finally, what I've been talking about, the enablement of 70 per cent or greater effective after-treatment, is absolutely predicated on having low sulfur fuel.

We've done some cost estimation based on our experience with reformulating fuel, and it looks like going from where we are now in the low 100 range to around 30, gives you something like three cents a gallon, at least for the California scenario, and a very cost effective \$4,000 a tone.

I'll switch to the Tier 2 standards. As you know, and your rulemaking documents clearly identify, we adopted what we call LEV 2 last year. The NOx standards are nearly identical to what's proposed in your Tier 2 rulemaking, although we have more stringent hydrocarbon standards in California because many of our areas require both NOx and hydrocarbon reductions to achieve air quality standards.

We demonstrated the feasibility on the heaviest SUV in those categories, and just a couple of engineers in a couple of months in the lab were able to get emission levels down below those standards. And, in fact, during the negotiations, the AAMA at the time offered in fact to lower NOx for cars even below what we proposed and ultimately adopted by about 20 per cent. We didn't accept that because it was a trade-off issue, but it goes to demonstrate their confidence in the technology being available. And the costs are low, roughly \$100 for a passenger car and \$200 for a sport utility vehicle.

A couple of slides just to illustrate these points. This shows the fraction of the proposed NOx standard for

heavy trucks that we demonstrated on the Expedition and then just by comparison, you did the same thing on a similar vehicle, I guess an LDT3, and we both came below the standard with catalysts, and we weren't able to do, and you weren't able to do all the things that the auto manufacturers are able to do to reduce emissions. So the fact we got there just by improved catalysts and a few minor calibration changes, I think demonstrates the feasibility of this.

I want to comment on the significance of Bin 7, because I think it can get misdirected here. Bin 7 is one of the seven categories of emission standards that a manufacturer can choose to meet in meeting the fleet average, and it has the most lax standards, and in many people's minds, it's the lean-burn standard, but I'll just be straight and call it the diesel standard.

We actually proposed something similar in California, but our board of directors rejected it and said that every vehicle should meet this 0.07 flat across the board NOx standard, which can only be achieved with absolutely the highest efficiency after-treatment.

Bin 7, if you're going to keep it, and some of the testimony, including STAPPA's testimony, which we support, suggests that maybe you don't keep it, or that you lower the standards, but what's important about it is that you keep it at least as stringent as it is, and resist relaxation.

Right now, I think it's probably adequately tight to force after-treatment technology, but a relaxation will probably mean that it's not, and this is an important opportunity, because there are market forces wanting to put diesels into larger sport utility vehicles, to put the pressure on to develop good after-treatment.

And what do we want out of that? We want it on heavy duty trucks. It's got nothing to do with the SUVs. It's got to do with making sure that technology is available so it can go on heavy duty trucks where the greatest emission reductions are. Here's an opportunity to do it, but you won't do it if the sulfur and diesel fuel isn't at least 30 ppm or less.

On the gasoline sulfur NPRM, again I'm just offering some comments. They're obviously similar to ours, the 30 ppm average and 80 ppm cap. We're actually averaging in the fleet now about 20 ppm, for a pooled average of fuel, but we don't think that's low enough, and this December, we'll be proposing some new regulations to further reduce sulfur, and with the objective of dropping the average, greatly reducing the cap. And the two benefits of that would be lower end use emissions from all the catalytic equipped vehicles, especially LUV vehicles, on the road today, and also it will open the door to enabling higher efficiency engines, such as lean burn gasoline engines, which can help

with global warming issues.

 And I thought I'd share—the other point I thought I'd share with you that you may find relevant is sort of a cost comparison of our RFG 2. Now, for those in the audience, RFG 2 is not just low sulfur fuel, but it's also low benzine, low olefin, low T-90 distillation curve. It's got a whole bunch of parameters in it, and when we adopted this in 1990, we had the industry doing modelling studies, like MathPro and those kind of studies, showing it was going to cost 23 cents a gallon. We thought, using the same kind of models, different assumptions, about 15 cents a gallon.

We revisited it in 1996 and found out that the capital expenditures for refiner modifications were down by a couple billion dollars from what the projections were, and so it came out around 10 cents a gallon. But the actual price difference of our gasoline compared to neighboring and nonneighboring states as far back as New York show that actual price—the ones on the left are costs—was about 5.4 cents a gallon for the '97, early '98 period. So this fuel, which is substantially reformulated, turned out to be quite a bargain from our viewpoint.

Conclusion; we think you did a great job on the proposals. If we were doing it, we'd do exactly--pretty much exactly the same thing you were doing. But we do ask you to accelerate the diesel fuel rulemaking, catch up with the NPRMs for cars and for gasoline, so that you have a uniform package, and keep uniform standards nationwide, especially for diesel fuel. And try to hang onto Bin 7. Don't relax emission standards.

Thank you.

MS. OGE: Thank you.

Mr. Cackette, this is the fourth day of public hearings, and we have heard a number of testimonies, including Mr. Faudel this morning, that have made reference to the California experience in reducing sulfur in gasoline. And we have heard statements to the fact that by lowering sulfur in gasoline in California you have supply problems, price spikes, and more critically closure of small refineries as a result of this action that the state has taken.

Could you just tell us what do you think the experience of the state is with this proposed and formalized fuel program? Would you please? -- experience.

MR. CACKETTE: Well a couple of facts. We produce the vast majority of our fuel comes from the northwest coast states and in California itself. In refinery nomenclature we're PAT 5, which is kind of a somewhat isolated set of refineries.

When we have breakdowns in major refineries we tend to have a higher volatility in the marketplace, and what happens is, it's the classic textbook definition of

hysteresis, prices go up fast and they come down slow. And these people make a lot of money, a transient situation.

We have experienced that a couple of times. We experienced it when we first put gasoline in place, and we experienced it earlier this year when there were two not related to reformulated gasolines, but two major refinery explosions that shut down refineries and reduced capacity.

When you reduce supply, price goes up. What happened was when that did occur, is that ships started leaving Houston bringing California reformulated gasoline, which can be made at many refineries—particularly in limited volumes—to California. And when that supply hit the price started going back down.

Where we differ from other areas of the country is that takes some time, which is—if you have nationwide consistent standards I don't think—I think it would be much more isolated from those kind of supply problems.

And when you look at many areas of the country like the northeast, they have a fairly large variety of ways of getting fuel. They get it from ship, they get it from pipeline, they get it from their own refineries. We're somewhat more isolated.

So the situation in California that spikes the prices are somewhat extreme there, and I don't think would be the things that you would experience on a national level nearly to the degree we have.

MS. OGE: The second question for you, Mr. Cackette, we heard from Ms. Cooper this morning that the alliance has proposed a \$5 billion sulfur program to be considered at the national level. We understand that your office is looking to 5 ppm level.

Could you tell us to what extent lower than 30 ppm sulfur would be needed for the LEV 2 standards or would be needed for other reasons that you mentioned this morning in your statement.

MR. CACKETTE: Well we do not think that you need lower than 30 ppm fuel for the LEV 2 standards. We did all of our technology demonstration on fuel that was about 30 ppm sulfur, and it clearly showed that it was adequate. Commences—there is mostly reversibility on three—way catalysts.

But if you lower sulfur lower than that, you do get additional emission reductions. What is--I think this angle will soon be available in time for your rule making, hopefully--is the studies that are trying to determine what is the response of vehicle emissions to low sulfur gasoline between 30 and essentially zero.

And that data I do not believe are adequate to pin it down with the specificity that's been suggested of, you know, five versus 10. But it will be available soon and you

should be able to use it in your final rule making.

MS. OGE: Thank you. Any questions for --

MR. CACKETTE: But I guess the point I want to make, though, on advanced technologies, is getting back to diesel, but it may also be true for lean burn gasoline engines, is all that talk is about—we just had was about what is the benefit on existing cars. That's what we're looking at lowering the sulfur level for.

But I think you have to look at the technologies that can achieve even further reductions where other goals like lower CO2 emissions, and let those technologies and those goals define what the sulfur level should be. In the case of diesel, it's clearly way lower than it is any--in California or anywhere else.

And the technologies need to define the level. That's why staff will propose 30 as a starting point, then a revisit by EPA within a few years to see if it should not go lower.

MS. OGE: Thank you. Any questions?

Thank you very much. Thank you for taking the time to come and share your views with us. Thank you.

I will call the next group of panelists, Mr. J. Sprue, Ms. Angie Farleigh, Mr. Bruce Polkowski, Mr. Clint Ensign, Mr. Greg Green, Mr. John Schenden, and also Mr. Ken Manley. Could you please write your names and your affiliation?

Also would like to remind you to please give a copy of your statement to the recorder for the docket. I guess we have Mr. Reg Modlin for Mr. Esper. Good morning. Why don't we start with you?

MR. MODLIN: Thank you for the opportunity to speak to the hearing on Tier 2 in Denver. My name is Reg Modlin. I'm here today to speak on behalf of DaimlerChrysler on the subject of EPA's proposed rules to modify vehicle emission control regulations.

In our opinion the combination of the sulfur free gasoline program with feasible, tough new vehicle standards, could be of great assistance to the western states in addressing both improved air quality and issues related to reducing regional haze.

DaimlerChrysler is an industry leader when it comes to supporting the development of environmentally sound vehicle technologies. We demonstrated this in March when we introduced the world's first zero emission hydrogen fuel cell passenger vehicle, and in May when we discussed our research on developing a gasoline fuel cell.

And we're demonstrating this commitment now by supporting the pursuit of touch vehicle emissions performance goals. Reducing emissions will help in achieving the nation's clean air goals, including reducing regional haze;

and we stand ready to do our part.

 As a member of the Alliance of Automobile Manufacturers, we contributed to development of the organization's position, and we fully support it. The Alliance's proposal makes sense because it meets our objectives and soundly beats the projected performance of EPA's proposal. Compared to the EPA's proposal goals of 800,000 tons per year reduction in 2007 and 1,200,000 tons per year in 2010, the program proposed by the Alliance could achieve about 957,000 tons and 1,248,000 tons per year reductions in the same time frame.

DaimlerChrysler supports a program in which car and light truck standards for nitrogen oxides eventually converge to a comparable level, provided that an independent review in 2004 verifies four key points. One, the price of emission reduction is cost effective and affordable to our customers; second, the program is based upon the use of gasoline that limits sulfur content to less than five parts per million; third, the standards are feasible for fuel efficient lean burn technologies; and the fourth, standards do not adversely affect any company relative to others in the industry.

With these points in mind, I emphasize once again that we believe that removing sulfur from gasoline is critically important to give auto manufacturers a chance to meet the nitrogen oxide fleet average objective.

Sulfur is a poison to exhaust treatment devices. A nation wide program is required to address this issue. Everyone from New York to Montana deserves cleaner air. Ozone may be the issue in the east and the Ohio Valley, where regional haze is the issue in the west.

From a quick look at data available from research conducted in Colorado, we estimate that overall regional haze could be reduced by about five to eight percent by simply removing sulfur from gasoline. We believe that these reductions may be found to be far greater when a better review is conducted.

But let's put this five percent reduction in perspective. This hearing on Tier 2 is discussing the merits of a program to reduce oxides of nitrogen emissions by about eight percent. The merits of reducing sulfur to five parts per million is relatively the same when looking at either oxides of nitrogen reductions or particulate matter. States in the west will have to look at adopting sulfur control programs on their own if EPA does not.

Reducing sulfur content of gasoline is an emission reduction strategy that promises to improve a variety of air quality conditions across the country. The mobility of the nation's vehicle fleet also demands nation wide sulfur control. Allowing control systems to be poisoned in one area so they can increase pollution in another simply does not

make sense.

issues.

We believe that these vehicles deserve cleaner, world class fuel. Improved gasoline formulation is a critical tool in the effort to reduce automobile emissions. In the coming decade reducing sulfur will be seen as the most effective immediate way to accomplish this goal.

Sulfur is a poison to the emission control system that over time will clog the pipes and prevent the system from working. EPA's proposal to reduce sulfur to 30 parts per million is a good first step.

The sophisticated clean burning systems that auto makers will develop to meet Tier 2 standards will be wasted if sulfur in gasoline is not limited further by this rule.

Thank you for the opportunity to speak to these

MS. OGE: Thank you. Ms. Angie Farleigh? Good morning. MS. FARLEIGH: Good morning. My name is Angie Farleigh, and I'm the clean air advocate for the U. S. Public Interest Research Group, U.S.PIRG. U.S.PIRG is the national lobby arm for the state PIRGs, coalition of environmental and consumer organizations across the country.

I greatly appreciate the opportunity to speak to you today on this important and timely issue. Over the past two weeks the 1999 smog season has descended upon most of America. Already this summer millions of Americans have been exposed to levels of air pollution that are unsafe to breathe.

If this summer is like 1998, we can expect frequent and widespread violations of the federal health standard for smog, not just in our urban centers, but throughout the nation. Last year the standards were violated 5200 times in 40 states.

What this means for people living in these areas, as Dr. Berger has already talked about, is they could experience declining lung function as a result of breathing the air in their communities. For normal, healthy adults it could mean not working or exercising outdoors, and over time lung tissue damage that could be irreversible.

For children, the elderly and those with asthma, high smog days mean missed work or school, not playing outdoors with friends, hospital emergency room visits for asthma attacks, increased susceptibility to infections and other serious exacerbation of pre-existing heart and respiratory disease.

Therefore new standards requiring clean cars and clean gasoline are not just a good idea. They're absolutely essential to protection of public health. Automobiles are the single largest source of smog forming pollution, creating nearly a third of the nitrogen oxide that causes smog.

While today's cars are cleaner than those two

decades ago, Americans drive more per year than ever before. In 1998 we drove in excess of 2.5 trillion miles, more than double the miles we drove in 1970.

In addition, Americans are driving bigger and dirtier vehicles than ever before, with nearly half of all new cars sold last year being light trucks, each of which can pollute up to three times more than the average car.

Together the proposed Tier 2 standards and gasoline sulfur standards comprise a strong, integrated approach to reducing pollution from automobiles. There are many aspects of the program that we applaud, some of which I will describe below.

I will also describe several important ways in which the Tier 2 program should be strengthened to prevent unnecessary delays or complication in implementation, and to avoid widening existing loopholes for bigger and dirtier automobiles.

First we applaud the overall significant reductions in pollution from the average automobile that will be realized through the Tier 2 program. The .07 grams per mile average standard for nitrogen oxides will make the average car 89 percent cleaner than the regular Tier 1 standard of .6 grams per mile.

It is clear that while this standard is aggressive, the technology to meet this standard is available. This program will also harmonize federal clean car standards with those adopted in California last November.

Second, we agree with EPA that the popular sport utility vehicles must be treated no differently for pollution purposes than cars. There is no longer an expectation that SUVs will be used as work trucks. On the contrary, they are widely acknowledged to be the station wagon of the 1990s, rarely used for a purpose more taxing than taking a family to the grocery store or soccer practice.

The justification for allowing SUVs to pollute more is an artifact, and new standards should simply reflect the new role SUVs play in our society.

Third, we agree that a nation wide sulfur standard should be adopted to prevent the poisoning of sophisticated new pollution control equipment. The automobile and the fuel should be treated as a single system, and EPA has appropriately proposed that new car standards be accompanied by clean gasoline.

Moreover, we strongly agree that nation wide, rather than regional, gasoline standards are critical to the success of the Tier 2 program. As Americans we enjoy the ability to drive from state to state, and as consumers we would be outraged to have dirty gasoline damage our cars.

More importantly, we have air quality problems across the nation, with violations of the health standard in

40 states last year. There is no region in the country that would not benefit from clean fuels.

 The oil industry representatives have argued stridently for a slower phase in schedule for clean gasoline, and increased flexibility for small refiners. We believe that EPA's proposal strikes an appropriate balance between achieving necessary pollution reductions and allowing the industry ample time and flexibility to meet the new standards.

EPA allows the industry to use an averaging system to meet the standard, and allows the refineries to use credits for early reductions to meet the standards. EPA also allows less stringent caps in the first two years, and allows the small refiners—a lot of which are here in Colorado—to meet less stringent standards through the year 2007.

More flexibility than this is unwarranted and would result in unenforceable, ineffective program. In fact, we believe the EPA's proposed gasoline sulfur standards allows too much time to pass before significant air pollution benefits can be expected.

In 2001 auto makers will begin nation wide marketing of low emission vehicles under the NLEV program, National Low Emission Vehicle program. The effectiveness of the emission control technology used in these vehicles will be compromised by the sulfur that will remain at high levels under 2004 to 2006, under the current proposal.

Moreover, EPA's proposal will allow gasoline containing sulfur at levels up to 300 parts per million to be sold in 2004, the same year that the Tier 2 standards will take effect.

Again, the technological advances made in these vehicles will be undermined by the use of high sulfur fuel in 2004 and 2005. A better approach would be to begin phasing in clean gasoline earlier so that most if not all gasoline sold in 2004 is clean.

While a strong first step, EPA's Tier 2 proposal for auto emissions should be strengthened before it becomes final later this year. I will highlight three important changes that should be made to avoid complication, delay, and the continuation of undesirable loopholes.

First, the EPA proposed allowing SUVs weighing between 6000 and 8500 pounds an extra two years before the Tier 2 car standards apply. There are a significant and growing number of these larger SUVs no the road today, including the Ford Expedition, the Dodge Ram, and Lincoln Navigator.

EPA's proposal gives these models until 2009, a full decade from now, before their exemption from the clean car standards expires. We believe that special standards for larger SUVs should expire immediately.

Second, EPA's proposal does not address pollution from the largest and dirtiest SUVs of all, those over 8500 pounds. The number of these super SUVs is also rapidly increasing, as the Ford Excursion enters the market to compete the Chevy Suburban.

By not including these models in the Tier 2 program, EPA is giving auto makers an incentive to aggressively develop ever larger SUVs. We believe that the Tier 2 standards should apply the same .07 NOx average to all classes of passenger vehicles, including those over 8500 pounds.

Third and finally, EPA's proposal will allow the proliferation of diesel vehicles, the pollution from which poses extremely severe health threats. A growing body of research shows that diesel exhaust has particularly severe health impacts. Smaller particles in diesel pollution are associated with greater risk of premature death.

Moreover, studies repeatedly show a link between diesel pollution and cancer, causing the State of California to list diesel pollution as a human carcinogen. The highest bin, the Bin 7, in the proposed average scheme is designed specifically to allow more diesel powered vehicles, which will continue to emit more toxic pollution than gasoline powered automobiles.

The State of California considered and specifically rejected a similar provision to protect its citizens from the carcinogenic nature of the exhaust. EPA should similarly remove the highest bin in the averaging scheme.

Again I would like to thank the EPA for allowing me this opportunity to comment on the Tier 2 standards, and I look forward to submitting more detailed written comments.

MS. OGE: Thank you. Mr. Polkowsky? Good morning.

MR. POLKOWSKY: Morning, Madam Chairman, members of the hearing panel. My name is Bruce Polkowsky. I'm with the National Park Service Air Resources Division, and I'm grateful for the opportunity to speak to you today about your proposed regulations calling for reduced tailpipe emissions for motor vehicles as well as the reduction in sulfur content of motor vehicle fuel.

The National Park System includes parks and historic sites in every state, both in urban and rural locations. And in your copy of my testimony there is a map showing the extent of our system.

We have the responsibility to protect and preserve the resources and values of these sites for future generations. Air pollution and its effects on these resources are the reason we support the EPA in its proposal.

Even taking into consideration the general trend towards improving air quality, many areas--possibly including lands administered by the Park Service--will not be in

attainment of the National Ambient Air Quality Standards in 2007 despite continued implementation of the National Low Emission Vehicle program, regional transport programs, and other pollution controls.

And areas that are in attainment will need further programs to ensure that continued economic growth does not degrade air quality. This is especially true to protect the extraordinary natural scenic and cultural resources found in the National Park System. Even at levels well below those established for human health, air pollutants degrade these resources.

Visibility impairment is the most ubiquitous air pollution related problem in our national parks. Although visibility degradation is more severe in the east, significant visibility impairment has also been documented in western national parks in relatively remote locations.

Even small amounts of fine particles in the air degrade our ability to see the spectacular, panoramic scenery of the western national parks. Steady and continuing reductions of all types of air pollutants are needed to restore natural visibility conditions.

Our researchers have documented air pollution effects on biological and aquatic resources. Ozone injury to native hardwoods and coniferous trees in the parks across the U.S. This can lead to changes in plant community structure. Another concern is acidic deposition of nitrogen and sulfur compounds which affect water chemistry, which in turn affect algae, fish, submerged vegetation, amphibian and aquatic invertebrate communities.

Acidic deposition and particulate matter are also a concern for the effect on historic monuments. Similar to ozone, acidic deposition effects on park resources occur nationally, including areas right here in the Rocky Mountains, the Cascade Range, the Sierra Nevada Range, upland areas of the eastern U.S., and eastern coastal areas. So it's truly a national problem.

We have observed acidification of streams in Shenandoah National Park and Great Smoky Mountains National Park. National measures such as the current proposed rule are needed to protect the natural wonders of our parts for future generations.

Emissions from motor vehicles include many pollutants including volatile organic compounds, carbon monoxide, sulfur oxides, nitrogen oxides, and particulate matter. In addition, through atmospheric processes, volatile organic compounds and nitrogen oxides combine to form ozone or smog.

Similar atmospheric processes turn gaseous sulfur oxides, nitrogen oxides and gaseous volatile organic compounds into fine particulate matter. This fine

particulate matter is both a health concern, and even in areas of low concentrations this particulate matter can contribute to visibility impairment.

The National Park Service has a long history of tracking air quality and visibility effects on the lands it administers. While some areas are showing improvement, others have had recent increases in pollution such as ozone and nitrate and visibility impairment.

In addition, all areas monitored for visibility show frequent regional haze impairment. The recently announced regional haze rules by EPA calls for the states to establish programs to improve visibility in many of our parks, especially here in the west. Emissions from motor vehicles, including sulfur related compounds, are part of the multi-source, multi-pollutant mix that impairs visibility regionally.

As noted in our June 12 comments on the Tier 2 study, the National Park Service endorses EPA's proposal to put on equal footing the control of emissions from light duty vehicles and light duty trucks. Given the increase in sales and use of light duty trucks, the proposed measures are cost effective and will be needed to maintain health standards in many areas, and make reasonable progress in addressing regional visibility impairment nation wide.

This national approach is important for visibility and other air quality related value concerns, even in areas of the west where ambient measurements are well below the current ambient health standards.

The National Park Service participated in the Grand Canyon Visibility Transport Commission from 1991 to 1996, and continues to work with western states and tribes through their formation of their Western Regional Air Partnership to address visibility concerns across the region.

The Grand Canyon Visibility Transport Commission was composed of the governors of eight western states: Arizona, California, Colorado, New Mexico, Nevada, Oregon, Utah and Wyoming, and leaders of the Pueblo of Acoma, the Hopi Tribe, and Hualapai Tribe, the Navajo Nation and the Columbia River Inter-tribal Fish Commission, as well as representatives from the EPA, the Park Service, the U.S. Fish and Wildlife Service and the U.S. Forest Service.

The Commission was formed to guide EPA in development of strategies to improve visibility in the desert southwest. The Commission's recommendations, which were endorsed by a majority of the governors, highlighted the need to address mobile source emissions and the need for broader application of cleaner fuels as part of the multi-source, broad regional strategy to improve visibility.

The National Park Service still endorses the Commission's recommendations and feels that EPA with this

proposal is following through on the Commission's approach of addressing future regional mobile source concerns.

While the issues of current tailpipe emissions are the thrust of EPA's proposal, the reduction of sulfur in fuel is a key element to future air quality progress. A national sulfur limit would be desirable if sulfur levels were needed to permit future development of vehicle technology resulting in significant reductions in overall emissions and in reduction in fuel consumption.

Such technologies now being developed, such as gasoline direct injection engines and fuel cells, may be more sensitive to sulfur than current vehicles. These technologies tolerate very little gasoline sulfur in order to limit production of other unwanted pollutants. Therefore gasoline sulfur removal is not only important to maintain emission control potential of current vehicles, but is being highlighted by many as an important new technology enabler for the future.

Reducing the sulfur content of commercial gasoline would reduce emissions from the current fleet of vehicles, reduce sulfur dioxide and sulfate emissions from all vehicles, and potentially enable advanced low emission and significantly more fuel efficient vehicles for the future.

In summary, the National Park Service feels that the time frame contemplated for the Tier 2 standards, there will be a need for air quality emissions nation wide. The control technology does exist today to reduce emissions of all light duty vehicles, including light duty trucks.

And the cost effectiveness of the technologies for addressing vehicle emissions and reductions in commercial gasoline sulfur is within the range of other available control strategies.

We urge EPA to promulgate the proposed rule, and we intend to provide written comments on this proposal, highlighting more information on the air quality concerns of the National Park Service during the comment period.

Thank you very much.

MS. OGE: Thank you. Mr. Clint Ensign. Good morning. MR. ENSIGN: Good morning. If I may I'd like to come here. Good morning, my name is Clint Ensign. I'm with Sinclair Oil. I do not own an SUV. I wish I did. I think (inaudible). Welcome to the west.

MS. OGE: Thank you.

MR. ENSIGN: And thank you for the chances that we've had to meet before. I want to thank Glen Passavant for coming out here about a week ago to visit with us to inform us on the Tier 2 gas and sulfur proposal.

The EPA had recognized in the rule making that there must be a transition period starting at 2004 and going to 2010 for the car and for the fuel as the nation makes a

transition period. And that's what I would like to focus on today, is that transition period.

I agree with what has been said today, that there are some remarkable things that the vehicle can do with low sulfur fuel. And the goal--not just the goal--but what we must do is to work towards making sure that we can achieve those in the best way for consumers and for industry without price increases.

I will take exception to what some of the other commenters have said and the way they've characterized our industry, the refining industry. The proposals that we have made in gasoline sulfur, the words that I have heard from Carol Browner, are that our proposal was constructed and helpful rather than strident and those kinds of things. I think that we really are trying to reach a solution here.

The Tier 2, the thing that triggers Tier 2 standards determined by Congress is whether we attain the NAC standards or whether they're needed to maintain the NAC standards. So my first chart comes from the proposal itself. It's Table C-5.

If we did nothing with the car or with the fuel, this chart shows the number of cities that would not attain the NACs, and all of them are Houston and east. This is the one-hour standard. If we were to go with the more protected eight-hour standard there is no city in PAD 4, the Rocky Mountain region, that would make the list either. So we live in an area here that is clean.

Now there is—there are maintenance measures that will take—that will go into effect, such as the low emission vehicles. We don't have them here in the west yet. These will run on gasoline that is currently available in the marketplace today.

SUVs, there are some companies that have indicated that they will voluntarily make SUV reduction--emission reduction again on gasoline today. We have our proposal that will make improvements in visibility and air quality throughout the west. It's quite substantial.

We have the Tier 2 vehicle, and when these two are added together there is a very constructive improvement in air quality. And then there are other incentives in the proposal.

Now there's been a lot of talk about visibility and how well, if you don't need it for the NACs or if you don't need it for maintenance purposes, we need California gasoline sulfur control for visibility purposes.

And I grew up just outside of Yellowstone Park, and I just absolutely love Yellowstone. On visibility, and the gentleman from California mentioned it, the one area, the fuel that is not well controlled now is the off-road (inaudible), the jet fuel, the home heating oil and the

railroad and others.

Those levels of sulfur in those fuels are up to 5000 parts per million, whereas the average gasoline sulfur average is 259. We feel that the cleaner, cheaper, smarter visibility option in the west is going after those kinds of things rather than--and I think we should do gasoline sulfur as well--but that we have some time to phase in to low sulfur gasoline.

The purpose of showing this chart and this chart and talking about visibility is to simply say again during that transition period from 2004 to 2010, there is not the urgency that there is in the east for the most stringent standard beginning at the front end of that program. We do have some flexibility that is not available in the rest of the country.

Now I would like to talk about California because that's been mentioned as well. I think that the gasoline sulfur standards in California, 30 ppm, is correct because California has big air problems and they need it to help their air quality.

But it has had an impact on the industry. In 1990 there were 32 refineries. The latest report from DOE shows 24 refineries. They've lost eight. They've lost nearly 300,000 barrels a day of refining capacity. It has had an impact, and what it's done is that it has also impacted the cost of fuel to consumers.

With this much product, 15 percent of their capacity, removed, when they do have—when their big refineries have problems, it does cause price spikes. Here's <u>USA Today</u> with a picture entitled "California Screaming," showing \$2 a barrel—or \$2 a gallon prices at the pump.

Just within the last week the wholesale prices as reported by Platz, in California compared to New York or Houston, all three Gulf Coasts--all three port cities, all three with big refineries, there is a 25-cent wholesale cost difference between San Francisco and Houston or New York.

Senator Barbara Boxer from California--Jerry Faudel with Frontier mentioned her--she has asked the FTC to look into why prices are so high. There has been an effect here.

Now the concern that we had for the Rocky Mountains is that when you look at the loss of capacity here in eight refineries, it shows that it's the small refineries that close. And in this region every single refinery is small.

Again we want to transition to low sulfur fuel, but it's our size, the small size, are the ones that have been hit the hardest. And we just simply need time to do that.

Now the last chart that I have shows the governors—shows the states that are highlighted, that—where they have sent EPA correspondence saying that we favor some type of regional consideration as you look into—as you set

national gasoline sulfur standards; and the shaded area represents nearly a million square miles of America.

And as you go to a national program, if tat's what you're going to do, please accommodate in some way the regional interests of these governors, and make the rule reflective of their interests. The air in these states are cleaner than the rest. Many of them rely on small refineries for supply.

Things like even the national LEV program had a regional component to it, where the east started before the west did. So there are many different ways to accommodate regional considerations in a national program.

Let me now turn to Math Pro. That had been mentioned this morning. Math Pro has actually done two reports. One was for the refiners in December of 1998, one three months later in March of '99--you know, one company, two reports in three months. One says six cents a gallon, one is about three and a half cents a gallon.

For Colorado consumers, to give them an idea, this one is \$120 million. This one is about \$70 million. So the costs are quite high. But what they do show is that the small refineries do pay more for gasoline sulfur control

On the issue of banking and trading, we like banking and trading, we think that that's a good idea. We like being rewarded for early reductions. Again the timelines don't work for us.

On the issue of this new technology, we think that it's promising, that it can cut the cost of sulfur reduction down; but we'll have to make--we'll have to choose our technology by this time next year, and not enough will be known about this new technology by then. We don't have a refinery that is using it right now in America.

Again I thank you for your time. I'd be happy to answer any questions.

MS. OGE: Thank you. Mr. John Schenden. Good morning. MR. SCHENDEN: Good morning.

Good morning, my name is John Schenden. I'm a Chrysler Plymouth and Jeep dealer here in the Denver metro, Thornton, Colorado. I'm here today on behalf of both the Colorado and the National Automobile Dealers Association.

The National Automobile Dealers Association or NADA is a trade association representing 20,000 franchised automobile dealers who sell new and used motor vehicles and engage in automotive service repair and parts sales. Together they employ in excess of one million people nationally, yet over 80 percent are small businesses as defined by the Small Business Administration.

Colorado Automobile Dealers Association, or CADA, is a state trade association representing new car and heavy truck dealers in the State of Colorado. I'm pleased to be

here today to address the Environmental Protection Agency, Tier 2 emissions and low sulfur fuel proposal.

CADA and NADA enthusiastically endorse a tighter set of vehicle emission standards as long as they are appropriately enabled by low sulfur fuels, they can be cost effectively achieved, and they will not have a negative effect or impact on vehicles or power train availability.

CADA and NADA anticipate that several important benefits will result from the implementation of the appropriate set of Tier 2 emissions standards. These include a significant contribution towards meeting the existing National Ambient Air Quality Standards.

The EPA proposal significantly recognizes the important role these new standards will play in helping Colorado and states elsewhere across the country to achieve compliance with the National Ambient Air Quality Standards.

In short, an appropriate Tier 2 low sulfur fuels scheme will help to keep nonattainment areas in compliance, and to keep attainment areas from becoming noncompliant.

A reduced need to regulate other emission sources: an appropriate Tier 2 low sulfur scheme will help to reduce the need to regulate other emissions sources. For example it is conceivable that Colorado and other states will be able to eliminate their tailpipe vehicle emissions inspection and maintenance programs.

Also, with increased reductions in mobile source emissions there will be less pressure to impose more stringent emission controls on small business stationary sources, including dealership body shops and service departments.

In the past when EPA proposed new emissions standards dealers raised legitimate concerns regarding potential impact on vehicle drivability and performance—that affects everyone—vehicle cost and vehicle power train availability.

EPA should carefully consider these issues as it moves forward with the development of its two tier low sulfur fuel rules. EPA's new standards must not result in a reduced vehicle drivability or performance.

Most all of our members in the late 1970s and early 1980s, when technology-forcing regulations directly contributed to new vehicles with reduced drivability and performance attributes. Dealers know all too well what such product problems can mean—at the very least, irate customers; worst yet, unsold new vehicles with their enhanced emissions reduction benefits languishing on dealer lots.

EPA should be able to avoid causing drivability and performance concerns by affording manufacturers the time and flexibility necessary to design and produce power trains that simultaneously meet both the Tier 2 objectives and market

expectations. This will be especially important with respect to the proposed new and stringent standards for light duty trucks--which are pickups, vans and MPVs--and for diesels.

Vehicle cost is always important to dealers and consumers. If the marginal cost of achieving Tier 2 standards is excessive, consumers will shy away from new vehicles and instead will continue to use older, less emission efficient cars and trucks.

If anything, EPA's rules should work to incentivize fleet turnover, not inhibit it. In addition to allowing manufacturers the time and flexibility they need to comply with Tier 2 standards, EPA can help keep costs down with a rule that where possible is consistent with California standards.

EPA's final rule must not restrict vehicles or power train availability, if for no other reason than avoiding inhibiting fleet turnover. Again, product restraints can probably be avoided with adequate time lead and flexibility.

This is of particular importance for light duty trucks, for they today continue to take about 50 percent of the market, and for diesel powered light duty cars and trucks whose present small market penetration is expected to grow in the not to distant future.

The success of EPA's proposed Tier 2 emissions control strategy hinges on nation wide availability of low sulfur certification and in-use fuels. Appropriate national sulfur averages and caps must be set in order to enable new emission technologies and to maintain the in-use efficiencies of the Tier 2 program.

Dealers have made tremendous investments in tools, training and parts necessary to service vehicles with onboard diagnostic and advanced emissions controls. Effective onboard diagnostics and advanced emission control systems will depend on the availability of high quality in-use fuels.

Motorists and technicians should not find themselves having to deal with fuel related false positive onboard diagnostic readings, or difficult in diagnosing fuel related emission problems. Any such problems could severely undermine the public's acceptance of the Tier 2 program.

EPA's low sulfur fuel proposal provides small refineries, many of which are located here in the mountain states, with the flexibility they need to comply. Given the mobile nature of our customers and the national scope of the Tier 2 mandate, it is critical that EPA implement a low sulfur fuel mandate that applies nation wide.

Just as an aside, as it affects the Denver metro area, we need a national standard for fuel and vehicle emissions. An example, the six-county metro Denver area has a higher standard than the rest of the state, though visitors

and commuters that are outside the six-county metro area can have vehicles with less stringent requirements. This doesn't really make a lot of sense.

And also as an aside we talked about the extra couple cents for the fuel costs. This morning when I was at the dealership the gas station next door to the dealership raised the price of gas seven cents a gallon with no apparent additional benefit to the consumers.

On behalf of CADA and NADA, I thank the EPA for the opportunity to comment on this matter, and would welcome any questions.

MS. OGE: Thank you. Mr. Greg Green. Good afternoon. MR. GREEN: Thank you, you made the transition from morning to afternoon.

MS. OGE: We're there.

MR. GREEN: For the record my name is Greg Green. I'm air quality administrator for the State of Oregon. In addition to my testimony this morning I've also brought written testimony with me from Oregon. Governor John Kitzhaber is strongly in support of this rule also.

In terms of my own formal testimony, I would like to congratulate the Environmental Protection Agency on the proposed new standards for Tier 2 vehicles and low sulfur gasoline. This proposal is a rare opportunity to achieve significant pollution reduction on a nation wide basis in a manner that is both technologically feasible and extremely cost effective.

In addition to the important and obvious health benefits that will be achieved by combining more advanced vehicles with cleaner fuel, this proposal will also result in important improvements in visibility in our national scenic areas.

The State of Oregon fully supports the proposed rule for Tier 2 low sulfur fuel and the advanced notice of rule making on diesel fuel quality. This will be evident by both my comments and the written comments I have supported for Oregon Governor John Kitzhaber.

Today I am going to concentrate my comments on the need for this proposal on the western United States. Certain organizations opposed to this rule making have offered as an alternative proposal regional standards that would provide a lower level of protection to the citizens of the west than those living in the eastern United States.

According to these sources our air quality problems are not as severe as the east, and therefore the need for these extremely effective pollution reduction strategies is not as important.

The fact is that the western United States, all areas west of the Mississippi, there are 92 nonattainment maintenance areas with a total population of approximately 28

million people. This figure excludes the State of California.

While Oregon has recently completed redesignation of our two nonattainment areas for ozone, during the summer of 1998 four regions of our state experienced exceedances of the new eight-hour standard. Two of these regions experienced multiple exceedances. With the growth in population both in Oregon and the west as a whole any gains we achieve through implementation of existing strategies promises to be short lived.

Our goal should not only be to bring nonattainment areas into attainment status, but to prevent marginal areas from having future health and air quality problems in the future.

Additionally the west has 131 Class 1 visibility protection areas, which account for about 80 percent of the national Class 1 areas. And this figure does include California.

In Oregon we have 12 Class 1 areas where impairment of visibility is of great concern to both our citizens and the 10 million visitors that come to our state each year. Emissions from motor vehicles are a contributor to regional haze that is impairing visibility in many of these areas.

An important feature of this proposed rule is that it combines two important strategies that will go a long way towards improving air quality in our country. EPA's proposal to establish new emission standards for light duty trucks, minivans, and sport utility vehicles equivalent in stringency to new passenger vehicle standards is exactly right.

Consistent with our love of the outdoors in Oregon, some automobile manufacturers are advertising light duty trucks and sport utility vehicles as necessary equipment to properly live and play in the Pacific Northwest. These vehicles are extremely popular and should not be allowed to emit higher levels of pollutants when the technology exists to curb their emissions.

The State of Oregon also strongly supports a national cap on the sulfur content of gasoline at 80 parts per million in the time frame proposed by the EPA.

In addition to the important emission reduction benefits this new fuel would have on the nation's current fleet of vehicles, it would inexcusable to propose tighter standards for our vehicles of the future and to power these vehicles with dirty gasoline, especially when the technology exists to produce this new fuel at a cost of approximately two cents per gallon of gasoline.

That's a cost of about \$100 over the life of a vehicle, which is a small price to pay for the health and regional haze benefits that will accrue.

I also believe that EPA has properly recognized

that special provisions need to be made for small and medium size refineries, particularly in the Rocky Mountain states. The EPA has included provisions in the proposed rule that will include economic incentives and flexibility such as averaging, banking and trading. The rule also includes generous compliance extensions for small refining companies and those facing economic hardship.

I support these proposals, but also believe that EPA should continue to explore the development of additional mechanisms that can be included in the rule to assist these smaller companies in complying with the new standards.

The Western Regional Air Partnership has tasked their mobile sources forum with developing recommendations on this important issue, and I encourage EPA to consider these recommendations before the final development of this rule.

The Oregon Department of Environmental Quality and Oregon Governor John Kitzhaber, through submission of his written testimony, also support the EPA's advance notice of proposed rule making for diesel fuel.

The same air quality issues that the EPA recognizes and plans to address through this Tier 2 gasoline sulfur proposal apply to diesel engines and diesel fuel. Technical evidence is clear that low sulfur diesel fuel for both on and off-road engines is needed to enable use of after-treatment emission control technologies that can provide major emission reduction of NOx and particulate matter from these engines on the order of 75 to 80 percent.

Through these two proposed rules the Environmental Protection Agency has taken two extremely important steps in providing significant health protection to our nation's citizens well into the 21st Century.

I urge the EPA to adopt the proposed Tier 2 standards and sulfur limits in fuel exactly as proposed to allow Oregon and other western states the opportunity to enjoy the same benefits as our partners in the east.

Thank you for the opportunity to testify.

MS. OGE: Thank you. Mr. Ken Manley. Good afternoon.

MR. MANLEY: Madam Chairperson, committee members.

Thank you for bringing this hearing to the State of Colorado.

My name is Ken Manley, and I'm the deputy director for the American Lung Association, and I represent the American Lung Association of Colorado. But more importantly I represent the some 67,000 plus children that suffer from lung disease in the State of Colorado.

As an organization we support proposed Tier 2 emission standards for vehicles and gasoline sulfur standards for refineries. Being a part of this health organization that I am, daily do I witness serious lung disease as it relates to air quality issues.

Besides air quality issues, one of the other

culprits of course is tobacco and second hand smoke. But primarily it's the mobile source emissions that causes the emergency room visits here in the State of Colorado to go up significantly on red pollution days as we see them.

We do not have a cure for asthma as yet. However, knowing that there are solutions to prevent episodes through cleaner burning fuel drives me and our organization to come today here to make this testimony.

We have research data because we're fortunate to have one of the greatest research centers here in Colorado, National Jewish, leaders in pulmonary study, perform numerous studies on the effects of air quality on children, especially that suffer from episodes caused by mobile source emissions. Testimony in written form with that research data will follow this hearing.

Again we commend your efforts. We are behind the proposed standards one hundred percent, and I speak for the Alumni Association of Colorado, who are our national association, is behind it again as well.

Thank you very much.

MS. OGE: Thank you. I would like to ask for Ms. Erin Kelly to confer -- understand -- speak for 30 seconds, I'm told. We're going to time you.

MS. KELLY: Thanks--do you have your timer set?

MS. OGE: (inaudible) speaking.
MS. KELLY: Oh, great. My name is Erin Kelly, and I'm

representing a group of friends of mine. I have John Hawkley, Sam Seeger, Rebecca Steadman, Erin McCullough, Mike McClure, Eric Yost, Shannon Anderson, Summer Sheffield, Brian Satlack, Mario Ortega and Christy Forester, all of which felt that this was an important issue.

We applaud EPA's Tier 2 and gasoline sulfur proposal because it is a strong program that will lead to dramatically cleaner cars. Specifically we agree with EPA that new cars should pollute 90 percent less than today's cars, and that a nation wide clean gasoline standard is necessary to ensure that vehicle pollution controls remain effective over the lifetime of the car; and that the popular sport utility vehicles should be included in the program.

Specifically we have three important ways that we believe are really strong. One is that no special treatment should be given to bigger and dirtier SUVs. Secondly, no special treatment should be given to diesel vehicles. And lastly, clean gasoline should be available earlier to all vehicles.

Again we really appreciate the opportunity to speak on this important issue, and thank you for your time. We really appreciate your standards.

MS. OGE: Thank you. I would like to thank all the (inaudible) members including Ms. Kelly (inaudible) came here

today to share with us. (inaudible) your comments (inaudible) are very important to us (inaudible) this week and start thinking about the proposals we have made (inaudible) forward and take steps to formalize this very important program. (inaudible) Thank you very much.

We will (inaudible) back in this room and start exactly at 1:15. Thank you.

(Adjourn at 12:25 for lunch.)

MS. OGE: We will start with the 1:15 panel. Will the following individuals please come forward: Mr. Gary Herwick, John Crnko, Tom Byers, Lisa Stegink, Brian Woodruff, and Mr. Pete Naysmith. Please state your names (inaudible).

Is anyone else that has (inaudible) scheduled to testify this afternoon that wish to make a statement? I would ask you to please keep your comments to 10 or less, 10 minutes or less.

Mr. Gary Herwick, good afternoon. We'll start with you.

MR. HERWICK: Thank you, I appreciate the opportunity to testify this afternoon. My name is Gary Herwick. I'm a manager of General Motors Public Policy Center, with responsibility for fuels policy matters.

General Motors stands ready to work with EPA in the months ahead to reach a final Tier 2 rule on vehicle emission standards that is both effective and workable. A mutual goal should be balanced regulation that will protect the environment, preserve our customers preferences, and all the pursuit of multiple engine control solutions.

(inaudible) industry sector has done as much as the auto industry has to clean the air. (inaudible) highway vehicle emissions have been reduced 60 percent (inaudible) organic compounds, 44 percent for carbon monoxide, and 11 percent of oxides and nitrogen since 1970, despite a more than doubling of the vehicle miles traveled.

Beginning with a voluntary industry national low emission vehicle program in the year 2001, new vehicle VOC plus NOx emissions will be 97 percent cleaner than 1970 models. (inaudible) seen earlier from the bold proposal made by the Alliance of Automobile Manufacturers, we're willing to do more.

We do need help though, because the vehicles and fuels work as a single system. In contrast to the 97 percent reduction in emissions required (inaudible) lead vehicles in the 99 plus percent reduction proposed by the Alliance for Tier 2 vehicles, fuel sulfur levels today remain uncontrolled in this country.

GM applauds EPA's recognition of the need to lower sulfur levels in fuels in its proposal to reduce average sulfur levels by about 90 percent. Yet the EPA's proposed sulfur levels do not go far enough.

Even lower sulfur levels are needed to enable the catalyst in the vehicle to reach peak efficiency and to assure the successful introduction of future propulsion systems. There is much to be gained from the current vehicle fleet by going from the 30 ppm level proposed by EPA to even lower levels in the near zero area, as proposed by the Alliance.

Some at today's hearing have expressed the hope that catalyst technology will be developed that is less sensitive to sulfur--the so-called sulfur tolerant catalyst; and that the poisoning effects of sulfur on catalyst operation could be reversible so as to avoid a national sulfur control program.

With regard to sulfur tolerance, the Coordinating Research Council, a joint research group composed of auto and oil industry representatives, has investigated such a potential technology, and has concluded that it does not currently exist.

COC also recently investigated the reversibility of sulfur effects on current low emission vehicles. This irreversibility means that these vehicles will produce higher emissions than they were designed to achieve. The USFTP regulation which limits fuel enrichment is likely to increase this amount of irreversibility.

As the auto industry increasingly relies on catalysts to reach lower emission levels, the even lower emission levels that are proposed in the Tier 2 rule, this amount of irreversibility will result in more of a loss of emissions control.

Finally, testimony provided by Honda at the first Tier 2 hearing that was in the Philadelphia area indicated that short term test programs such as the COC program had likely underestimated the irreversibility of the sulfur effect.

The Alliance proposal includes many aspects of EPA's proposed Tier 2 rule, including the .07 NOx average level. It is not limited to proven technology, but accepts many technological challenges requiring invention (inaudible), especially for more engine and emissions control technologies.

Thus we are concerned that the EPA proposal lacks the flexibility to accommodate these challenges, which may limit our ability to develop advanced technology and could restrict customer choice in the marketplace.

We are concerned that EPA's proposal precludes advanced lean burn direct injection technologies which are needed to improve fuel efficiency. The National Research Council in its review of the progress of the Partnership for New Generation of Vehicles has cited the EPA standards as the largest challenge to the successful introduction of these

technologies.

We believe it would be a mistake for EPA to discourage the advancement of these promising technologies and to ignore the necessary balance needed between emissions and fuel efficiency objectives.

In addition to the emissions benefits low sulfur fuels bring to the current fleet, it is clear from work to date that near zero sulfur levels in both gasoline and diesel fuel, as proposed by the Alliance, are critical to the development of these fuel efficient technologies.

Second, the time line in standard levels that are proposed by the Alliance allow for the invention, development and validation needed to ensure that the technology works when it's in the hands of the consumer, and provides the real (inaudible) benefit for which it is intended.

The EPA time line significantly increases the risk of failure. EPA's proposed rule also increases the stringency of the NOx standards for many of the 2004 and later model vehicles which are not part of the Tier 2 phase in.

These (inaudible) standards should not changed, but should remain harmonized with the NLEV and California LEV standards. That stability would allow us in the industry to focus our limited resources on the interim Tier 2 and final Tier 2 standards.

Clearly this is one of the most technology forcing rule makings ever undertaken by the EPA, and ever faced by our industry. The standards proposed by the Alliance, let alone those proposed by the EPA, are significant stretch objectives that require invention of new technology.

The standards also impact other objectives, including fuel efficiency and advanced technology vehicles, customer choice and the competitiveness of the US auto industry. It is imperative that an independent study of the program be conducted in 2004 in time to make new course corrections to the 2007 (inaudible) requirements, if necessary, to ensure that these objectives are properly balanced.

Such a mid-course review becomes critically important to air quality as well, because we are seeing a growing body of evidence that further reductions in (inaudible) NOx may actually have the effect of increasing ozone levels in many of our most highly populated urban areas.

GM is firm in its commitment to preserve the environment, to provide clean vehicles, and to offer a variety of products based on our customers' needs. But it's clear that changes are needed to the proposed rule to meet more of these goals at the same time.

We would work with the EPA and others as needed

during this critical rule making process to balance all these needs so that we may continue to supply vehicles that our customers want to buy.

Thank you.

MS. OGE: Thank you. Ms. Lisa Stegink? Good afternoon. Welcome back.

MS. STEGINK: Thanks--good to be back.

My name is Lisa Stegink, and I am here today on behalf of the Engine Manufacturers Association. Among the EMA's members are manufacturers of pickup trucks, sport utility vehicles, other light duty trucks and passenger cars, and the diesel engines that are being designed to power them. The EMA has submitted a copy of its oral statement for the record, and has had the opportunity to present comments previously in Philadelphia and Atlanta.

As we all recognize, this rule is one of great significance. It will substantially reduce the emissions from light duty vehicles and, depending on how the rule is finalized, it can do so in a way that not only reduces HC, CO, NOx and PM emissions, but also in a way that can reduce carbon dioxide emissions, improve fuel economy, help commercialize diesel technology that can achieve additional reductions from other sources, and provide cleaner fuels to improve the emissions from both new and existing vehicles.

As we have discussed with you, the single most promising cost effective and available technology to reduce CO2 and improve fuel economy is the diesel engine. This has been confirmed by work coming out of the Partnership for a New Generation Vehicle program, and has been recognized by the Department of Energy and the Administration.

For example, according to EPA data comparing similar sized gasoline and diesel engines, a diesel engine exhibits a 60 percent improvement in fuel economy while achieving a 30 percent reduction in CO2 emissions. Diesel engines also are inherently low emitters of HC and CO, are extremely durable with little or no degradation from initial air quality emissions performance levels, and can perform more work more efficiently than other types of engines.

These and many other positive attributes of diesel engines can be realized if EPA reduces the sulfur content of diesel fuel to no more than five parts per million, offers greater flexibility in allowing manufacturers to average their fleet-wide emissions levels, and provide modestly more lead time to commercialize new clean diesel technologies.

Diesel engines that are being tested today and that are on the cusp of commercialization will be quiet, free from excessive vibration, and free from visible exhaust emissions, and they will do so while retaining their fuel economy and durability advantages.

The adoption of Tier 2 standards that allow a role

for vehicles with diesel fueled engines in the light duty market has significant potential to stimulate support and speed major research and development in clean diesel engine technology. And those new technologies can be transferred to other applications to provide even more extensive benefits.

Engine manufacturers already have made great strides in reducing emissions from diesel fueled engines, and we recognize that more can be done. The key, however, is to assure that world class advanced technology engines are paired with and supported by world class ultra clean fuels.

As EPA has recognized, the stringent emissions standards in today's proposal require a systems approach to compliance in which technology and fuels are integrally linked. For light duty vehicles a diesel fuel with an ultra low sulfur level at five ppm or less is essential. It would provide direct PM emission reductions, it would enable substantial NOx emission reductions, and it would provide fleet wide benefits for both new and existing vehicles with diesel fueled engines.

Ultra low sulfur diesel fuel also is required to maintain engine durability. Without it, severe engine wear and poisoning of the entire system can occur. And with the need to reduce carbon dioxide emissions from the transportation sector and the need to improve fuel economy, the increased use of diesel fueled engines using ultra low sulfur fuel would decrease carbon dioxide emissions.

Finally, improved diesel fuel also has a role in responding to potential health effects concerns. Ultra low sulfur fuel lowers the total mass of particulate from the entire fleet and enables the use of known after treatment technologies such as oxidation catalysts which can reduce the organic fraction of PM emissions and, as discussed above, can enable technologies to reduce NOx which in turn will reduce secondary PM.

The proposed Tier 2 rule puts the commercial viability of diesel fueled engine technology at risk, resulting in the potential loss of the many benefits that diesel fueled engine technology can provide. With moderate and appropriate modifications to EPA's proposal, however, EPA can assure that it does not miss the opportunity to have low NOx emitting, high performing, low CO2 producing diesel fueled engines available in the market.

To that end we urge EPA to incorporate an independent midterm review of the proposed standards in the final rule. Diesel fueled engine technology can remain a viable option without adverse emission impacts, and with ultra low sulfur fuel, widespread NOx and PM emission reductions can be achieved.

EMA will provide more detailed comments and recommendations in our written comments to the agency.

Thank you.

MS. OGE: Thank you. Mr. Brian Woodruff? Good afternoon.

MR. WOODRUFF: My name is Brian Woodruff. I'm senior environmental planner with the City of Fort Collins. Fort Collins mayor Raymond Martinez asked me to make the following statement on his behalf.

I bring you greetings from the council and citizens of Fort Collins, a city of over 100,000 on the front range of Colorado. We are pleased to provide these comments on the vehicle emission standards and fuel standards proposed in the Federal Register on May 13, 1999.

The Fort Collins city council supports the proposed Tier 2 gasoline sulfur and diesel sulfur proposal. Our citizens want clean air and they want to see continued the track record of improvement in vehicle emissions that has resulted from federal new vehicle standards in the past.

Air pollution is a high priority for Fort Collins residents, as evidenced by surveys. The added per vehicle cost of \$200 to \$300 for both new technology and cleaner fuels over the life of the vehicles is reasonable, given this high level of concern, especially since such cost estimates have proven high in the past.

The city's air quality goal is to prevent air pollution emissions from rising in the future. We know that there are only two basic methods to reduce vehicle emissions, first by reducing vehicle miles of travel, for VMT, and second by reducing the average tailpipe emissions per mile from vehicles.

The city pursues both methods in order to prevent future emission increases. Our VMT goal is to prevent VMT from growing faster than the population growth rate. For the long term we are implementing new comprehensive land use and transportation plans. These plans were designed to reduce residents' dependence on vehicles and to make alternative modes of travel attractive.

For the short term we are encouraging residents to shift their travel from single occupant vehicles to alternative modes. These programs are controversial however, despite our residents' strong desires for clean air, because they do affect our lifestyles.

Recent VMT data are discouraging. The VMT growth rate exceeded the population growth rate 87 percent over a three-year period recently. Of course we will continue our efforts to bring the VMT growth rate down, but our goal to prevent emissions from increasing in the future appears to be slipping away, despite our best efforts at the local level.

On the tailpipe side of the equation, the city reduces tailpipe emissions in the usual ways, by improving traffic flow, improving the effectiveness of inspection and

maintenance programs, and increasing the number of alternative fuel vehicles.

However we know that historically the federal new vehicle emission standards have been far more effective than anything we can accomplish at the local level. Stricter standards for new vehicles will be needed if the city is to meet it's air quality goals locally.

We see the benefits of this proposal primarily in the area of ozone and visibility. Fort Collins ozone levels have remained steady since 1986. This is a cause for concern, however, because tailpipe emissions were improving over that period due to new car standards. Without the continued improvement brought about by the stricter standards in the proposals before us today, VMT growth will likely cause ozone levels to rise in the future.

Visibility impairment is a major concern for Fort Collins and front range residents. Fort Collins' visibility violates the Colorado established standard about one day in three. The north front range air quality study completed in 1998 implicates vehicle emissions as a significant source of PM 2.5, which is in turn a major cause of visibility reduction on the front range. The proposed standards will therefore help achieve state and local visibility goals.

We are disappointed that the proposal does not tighten carbon monoxide standards. Fort Collins last violated the CO standard in 1991 and will soon prepare a CO maintenance plan. Communities like Fort Collins, which have rapid population and VMT growth, will face a losing battle to prevent CO emissions from rising to unacceptable levels unless there is continuing improvement at the tailpipe.

For that reason U.S. EPA should revise the standards so that sport utility vehicles, minivans and pickup trucks must meet the same CO standards as passenger cars.

Thank you for the opportunity to comment on behalf of Fort Collins citizens and their city council, signed Sincerely, Raymond Martinez, Mayor.

MS. OGE: Thank you. Mr. Tom Byers. Good afternoon.

MR. BYERS: Good afternoon. My name is Tom Byers. I'm senior government representative with Williams Energy Services, an operating unit of the Williams Companies.

Although Williams is involved in nearly every phase of the energy industry, our interest in these regulations stems from our ownership of two refineries, one in Memphis, Tennessee, and the other in North Pole, Alaska.

I appreciate the opportunity to present our views on the impact of EPA's proposed gasoline sulfur standards on Williams operations. Rather than duplicate what others have already said, I would like to focus on the specific difficulties these proposed regulations present for our operations.

EPA based the requirements in the proposed rule on a belief that new innovative desulfurization technology will become available, even though it is has not been commercially proven thus far. We certainly hope EPA is right.

New technologies such as sulfur absorption and biodesulfurization, which are not based upon hydro-treating, are currently being developed in the industry. These technologies may eventually prove to be much more cost effective, particularly for small gasoline producers. However, additional time is needed to develop these processes to the point where they can be utilized to attain the EPA's aggressive sulfur levels.

Under the EPA's current timetable for compliance beginning in 2004, Williams is faced with few realistic options. Although conventional hydro-desulfurization technology does exist it is prohibitively expensive for a small gasoline producer, and has not been proven to be operable and reliable in a harsh arctic environment such as North Pole, Alaska.

On the other hand, if we place our bets on one of the new technologies that eventually proves to be ineffective, the deadline will be upon us and the only option at that point will be to quit making gasoline. Given that we produce 38 percent of the 16,000 barrels a day of gasoline consumed in Alaska, and given the unique geographic nature of the state, this would be disruptive to the point of being disastrous.

It is difficult to understand why refiners in such unique areas should be subject to the same timetable as large refiners in huge metropolitan areas. Also, in order to be consistent with recently published intentions of Canada and the European Union to start the implementation of similar gasoline sulfur regulations in 2005, it would be prudent to delay the EPA requirement until at least 2005 at the very earliest.

A delay would provide industry with additional time to develop the new and innovative technology that is in the testing stage. In addition, it will bring the United States program onstream at the same time that the rest of the major industrial nations implement their programs, thereby avoiding the nonalignment of similar programs.

The compliance schedule in the rule needs to allow for the possibility that new technology may not perform as hoped, and that compliance may need to be delayed to adapt alternatives. The proposed rule contains two methods by which compliance can be delayed, and these are worth considering.

The EPA proposal incorporates the Small Business Administration's definition of small business, that is no more than 1,500 employees, to determine which facilities

should be subject to the less stringent standards for small refiners.

However, the EPA is including in that number all employees "throughout the corporation, including any subsidiaries," and not just those in the refining segment of the company. Although there are approximately 22,000 persons in the Williams organization, there are only about 500 persons total in our two refining groups.

Even if the parent organization is large, the refining operations must compete for capital with other groups, so that in reality there is little distinction between the ability to comply of a small independent refinery and a small refinery within a large organization.

We believe the small refiner exclusion should be based on the amount of gasoline produced by a refinery. For example, Williams North Pole refinery has a total production capacity of about 60,000 barrels per day, but only 10 percent, or 6,000 barrels per day of that production slate is gasoline.

When viewed from a cost per gallon standpoint, we must as a company question whether spending millions to achieve a drastically lower sulfur content in such a short period of time and for such a small quantity of gasoline is a justifiable capital investment.

Providing relief to small refiners based on gasoline production capacity rather than the number of employees, or even crude processing capacity, would allow some extra time for small producers to research and employ more cost effective technologies than the conventional hydrodesulfurization.

Another alternative would be to restructure this delayed compliance option so that it applies to companies willing to try new commercially unproven sulfur reduction technology. This would encourage companies to adopt innovative less costly solutions to the problem without the fear of running into the deadline such the new technology not prove workable.

Under EPA's proposed banking and trading scheme, credits could be generated during the period 2000 to 2003 by any refinery that produces gasoline with an average sulfur content of 150 parts per million or less. These credits could within limits allow other refiners up to two additional years to fully comply with the rule.

In theory we might be able to take advantage of the trading program, but the reality is much more doubtful, given the time and expenditure which will be required to retrofit refineries to enable the production of lower sulfur fuel, four years is an inadequate amount of time to generate significant credits.

Also, even if the EPA issues a final rule on this

docket by the end of 1999, the result will probably face a legal challenge. In light of the recent court of appeals decisions concerning the national ambient air quality standards for ozone and particulate matter, and the stay placed on the NOx sit-call (phonetic), and the relationship between Tier 2 low sulfur gasoline and those standards, what company can justify spending large sums of capital to comply early if the regulation is being litigated?

Assuming for the sake of discussion that Williams North Pole refinery is not afforded relief as a small refiner, we would likely opt for the benefits that could be realized from a simplified working, realistic banking and trading program.

In fact the two Williams refineries provide a good example of how such a program could be beneficial. Given an adequate amount of time our much larger Memphis refinery may be in a position to generate early compliance credits which could provide the needed relief for our Alaska facility.

In summary, if this rule does move forward we want to develop and install innovative technology, and we want to bring the Memphis refinery into compliance as early as reasonably possible. We cannot however do that under the schedule that has been proposed.

We believe it is important to point out at this time that at the same time we are attempting to address these lower gasoline sulfur standards, we are also reviewing the advance notice of proposed rule making concerning a lower sulfur content for diesel fuel. Sulfur reductions in diesel would require an additional multi-million dollar investment by Williams.

In an earlier proposed rule concerning diesel fuel, the EPA made the following statement describing the unique characteristics of Alaska that demonstrate challenges that exist for both diesel and gasoline fuel. "The basis for today's proposed rule is that compliance with the motor vehicle sulfur requirement in Alaska for areas served by the Federal Aid Highway System is unreasonable because it would create an economic burden for refiners, distributors and consumers of diesel fuel. This economic burden is created by unique meteorological conditions in Alaska and a set of unique distillate product demand in the state."

Although this statement was made in the context of diesel fuel regulations, it supports the earlier statements that Alaska is a unique isolated and very small market that should be considered separately from the continental United States when regulations are proposed.

Alaska currently is exempt from the highway diesel sulfur regulations in the Clean Air Act, and we understand that that exemption is about to be extended. We ask that if the rule on diesel sulfur moves forward, the timing of the

highway diesel sulfur exemption should be synchronized with the implementation of any new diesel sulfur requirements.

Again, we thank the EPA for the opportunity to voice Williams concerns, and we hope that you will take these comments into consideration in developing the final sulfur gasoline rule.

Thank you.

MS. OGE: Thank you. Mr. Pete Maysmith, good afternoon.

MR. MAYSMITH: Good afternoon. My name is Pete Maysmith, and I live here in Denver. Thank you for the opportunity to testify today regarding the proposed new clean air standards.

It strikes me that we have an opportunity today to take a tremendous step forward to protect our health and also clean up our air. I grew up in Colorado, and as you all are well aware, the Denver metro area has struggled for years to improve its air quality. New tougher emission standards and cleaner fuels will go a long way to improving our air here in Denver, and it's consequently helping mitigate health impacts of air pollution.

While I do not personally have asthma, several goods friends of mine do. Myself and my friends are active and participate in a variety of outdoor summer activities including ultimate frisbee, biking, running, tennis, soccer and the like. It is common for my asthmatic friends to comment that on some days it is harder for them to be active outdoors than on others because of the air quality and how it impacts their breathing.

Even though I do not have asthma, I also worry about spending too much time exercising outside on these high pollution days. This makes no sense. We're the most advanced nation in the world, and yet only too frequently residents of Denver and other cities either can't or are hesitant to be active out of doors because our air is so dirty.

I urge you to responsibly and aggressively address this problem. We have cleaner cars today than two decades ago, but automobile air pollution is on the rise. Well, as we are fond of pointing out here in the west, we love our freedom, our freedom to drive and our freedom to choose to drive huge polluting vehicles.

I believe it is essential that we implement automobile pollution control technology that keeps pace with the trends towards more driving and larger vehicles. I support EPA's Tier 2 and gasoline sulfur proposal because it is a strong program that will lead to dramatically cleaner cars.

Specifically I agree with EPA that the new cars should pollute 90 less than today's cars, that a nation wide clean gasoline standard is necessary to ensure that vehicle

pollution controls remain effective over the lifetime of the car, and that the surge in sport utility vehicles should be included in this program.

However, I urge the EPA to strengthen its standards in the following important ways. One, do not allow an extended timeline for the biggest dirtiest SUVs to come into compliance.

In its current form the proposal will not require the clean-up of the largest and mostly polluting sport utility vehicles currently on the market, and gives some SUVs until the year 2009 before the standards apply.

This loophole creates a permission center for automobile manufacturers to aggressively make and market ever larger and more polluting SUVs. All cars and all SUVs should meet the same pollution standards at the same time under the new standards.

Number two, no special treatment should be given to diesel vehicles. Automobile makers are moving towards diesel engines for their largest passenger vehicles. EPA's proposal leaves the door open for higher polluting diesel trucks to be sold indefinitely.

Number three, clean gasoline should be available earlier. EPA's proposal--under the EPA's proposal high sulfur gasoline would be on the market in significant quantities as late as 2006. Instead clean gasoline should be in place in 2004 when the clean cars begin to come off the assembly lines.

Again, thank you very much for the opportunity to speak. I very much applaud EPA for proposing the stringent standards for cars, and I urge the adoption of this program with the noted strengthening amendments.

Thank you very much.

 MS. OGE: Thank you. Mr. John Crnko. Good afternoon. MR. CRNKO: Good afternoon. Got some overheads, so it'll take just a second.

The U.S. EPA is correct, see comment ASTM 5453, which is a sulfur by ultraviolet fluorescent measurement technique to be designated as the primary sulfur test method. Reasons include the laws that resulted after a group of refiners, the Western States Petroleum Association, or WSPA, petitioned the California Air Resources Board for more capable, flexible and economical sulfur test methods.

Various laboratory studies in cooperative multilaboratory tests revealed that D5453 was such a sulfur test method. These are the California laws that resulted. Data taken from separate and independently run ASTM cross-check programs has reinforced the California law.

This graph illustrates that D5453 is capable of very good accuracy, and between lab reproducibility for levels less than 30 parts per million. And it's

particularly capable of accurate and precise results when sulfur levels are below 50 parts per million.

Data from the same samples, from the same ASTM cross-check program demonstrated that 2622 reproducibility is clearly less than that derived from the 5453 technology. In fact it stated in its own test method, SCO, the D2622 can have much difficulty analyzing for sulfur at levels at less than 15 parts per million. D2622 does have a proven record for determination of higher level sulfur concentrations.

D5453 also has the (inaudible) range to provide equivalent sulfur results in higher concentration fuels. Here collection of all fuels analyzed by both D5453 and 2622 for sulfur levels less than 500 parts per million from the ASTM laboratory cross-check program has shown.

This data includes analysis for reformulated gasolines, conventional gasolines, diesel and jet fuels, and it came from data generated between June of '96 and December of 1998. This data confirms and reinforces the conclusions of the WSPA and California EPA regarding the equivalency of 2622 and 5453 for higher sulfur concentration samples.

D5453 has no interferences for the products covered in this Tier 2 proposal because the halogen contaminations are stringently controlled in the modern mode of fuels. D5453 uses a sample combustion technology that is very selective and free from the hydrogen carbon ratio interferences that affect the proposed primary sulfur regulatory method 2622.

Instrument calibration is straightforward and not biased by the matrix of the calibration material. D5453 has a proven history of performance in the measurement of sulfur at very low levels.

Additionally, U.S. EPA correctly requests comment concerning technology cost. Many laboratories and refineries already employ the use of 5453 analyzers. 5453 technology is very economical alternative to 2622. That's because it costs less at initial purchase, is easier to maintain, and actually has a much lower operational cost.

Information from laboratories that have operated both test methods allow the following cost comparison. Initial cost: instrumentation costs vary depending upon the capability options selected by the end user.

For laboratories that operate 5453 and 2622 instruments with similar bare bones functions, such as single element detection capability, manual sample introduction, the initial purchase and installation costs of 2622 capable equipment is roughly three times that of the 5453 capable equipment.

Space requirements: bench space and work environment is a costly consideration for any laboratory. Many of the laboratories that will be responsible for

determination of sulfur in downstream control and verification activities are not large. Although new 2622 equipment has gotten smaller, it's space requirements are still at least three times that required by 5453.

Operation and maintenance cost: laboratory feedback indicates that because of their complexity maintenance contracts are almost required for 2622 instruments. D5453 technology is much easier to maintain, with a majority of labs choosing self-maintenance.

When considering annual consumables such as sample handling paraphernalia, electronic mechanical parts and electrical power, 2622 costs can be three times that of 5453, even when the maintenance agreement, which is not required for 5453, is included.

Permits, personnel exposure: many states require permitting and monitoring of personnel for radiation exposure. This can add to the 2622 operating costs.

Significant initial economic savings can be realized if the EPA allows the use of 5453. That's because many of the companies that will have to produce and measure the new Tier 2 fuels already own and operate 5453 equipment for some type of routine analysis. 5453 can come on line as a primary sulfur test method and many companies will have little or no cost.

For sulfur fuels, D5453 is the technology of choice. It has the analytical range, cost savings, availability and the flexibility in application that the oil industry will need on its journey towards Tier 2 (inaudible) fuel production.

In conclusion, D5453 provides superior sulfur test results at lower sulfur levels in equivalent measurements of high sulfur concentrations. Allowing the use of 5453 could enable significant capital savings for the fuel producing communities, while giving them a better measurement tool as sulfur concentrations continue to drop.

5453 test method has already been approved by other regulating agencies and has proven its worth time and time again in daily low sulfur fuel production, as well as in general use on a world wide basis. D5453 is a global technology that should be designated as the primary U.S. EPA sulfur test method. D2622 and possibly other ASTM test methodologies should be designated as the alternate test methods.

Thank you.

MS. OGE: Thank you. Like to thank all of you for coming here to testify. Especially I would like to thank Mr. Pete Maysmith being here as a citizen of Denver. Thank you very much.

I would call now the next panel. Please come forward Ms. Janice Pryor, Mr. Ron Williams, Mr. Tom Plant,

Ms. Lynn Westfall, Mr. Nick Johnson, and Mr. Mike Astin.
Ms. Janine Pryor, we'll start with you. Good afternoon.

PRYOR: Good afternoon.

 $\mbox{\rm OGE:}\ \mbox{\rm We need more pens.}$ You hear that? Okay. Next, more pens.

Please go ahead.

PRYOR: My name is Janine Pryor. I'm the Public Policy Manager for the American Lung Association of Colorado. And I'm also their Air Quality Staff Specialist.

I want to thank the Environmental Protection Agency for their valiant efforts to help clean up the air and to make the recommendations they are making.

Both the American Lung Association of Colorado and the National American Lung Association strongly support many aspects of your proposals. Our only major recommendation is that they be implemented sooner rather than later. We would hope that if at all possible by the year 2004 for your SUV N-30 PPM recommendations. And we certainly encourage you to keep the recommendations as they are at this time, and strongly support them with the exception that I mentioned.

I would like to place a human face on this issue, and I regret that Sammy Martin, a 4th grader from Montclair Academy, couldn't be here. He was who the Lung Association wanted to have testify. But he was a little shy, so he wrote some remarks. And I'd like to share them with you.

"When I was two years old I was diagnosed with reactive airway disease, which later was called asthma. When I have an asthma attack, the airways in my lungs react to something and it is hard for me to breathe the air in and out of my lungs."

He goes on to mention several things, including exhaust that causes his asthma.

"When I can't breathe, my chest feels tight and it is scary for me. Sometimes I have to go to the emergency room at Children's Hospital. My mom goes with me. Sometimes I wonder if I will go home again."

Like Sammy, there are 67,000 children in Colorado with asthma. There are over 300,000 Coloradans with chronic lung disease. It is very difficult for them to breathe on some of our poor air days. That's why the Lung Association of Colorado is extremely grateful for the proposals you're making. We try to change behavior. We try to do a lot, though the things that we try to do can make a difference. What you're talking about will make a significant difference, an impact on the lives of people with lung disease, as well as healthy folk, so we thank you for this opportunity.

Thank you.

OGE: Thank you. Ms. Sally Allen. Good afternoon. ALLEN: Good afternoon. My name is Sally Allen. I'm a

Vice President of Gary-Williams Energy Corporation, a Denver based oil and gas company. I should point out that we are unrelated to the Williams companies who testified in the previous panel.

Our primary asset is a 50,000 barrel per day refinery in Wynnewood, Oklahoma. Company-wide, we have about 275 employees and fall within the definition of small refiner used for these regulations. Ron Williams, company president, testified at the Philadelphia hearing last week, and is sorry that he cannot be here again today.

I will summarize the four main points of our company's statement.

First, we want to emphasize our appreciation for EPA's interest in and commitment to the small businesses that will be most severely impacted by this rule making. We were invited by the Small Business Administration to participate in the Small Business Regulatory Enforcement Fairness Act process. Panel representatives show great commitment by coming to our Denver offices and the Frontier Refinery, in Cheyenne, Wyoming. We submitted company information and joined with eight other small refiners as part of a coalition submitting joint comments.

In our view, the SBREFA process was thorough and beneficial. Panel members were knowledgeable, understanding and willing to propose new approaches in order to keep alive small refiners like us who undoubtedly would have had to shut down if hit with stringent requirements in a very tight time frame. In our case, for example, because we distribute product by a pipeline to the east, a strictly regional approach would not have provided the necessary relief.

We are convinced that the SBA and EPA review of small refiner concerns with regard to this rule making are consistent with Congress' intent in preserving small business in this county. The SBREFA panel proved to be a constructive mechanism for small business to work out mutually appropriate solutions with federal regulators.

Our second point, however, is that two sections of the proposed small refiner standards still cause us concern. The sulfur levels imposed for the year 2004 appear somewhat arbitrary. We are still reviewing options and examining cost impacts of meeting the relevant standard. Even if we can meet the reduced levels required by changing our crude slate, we now estimate that the negative economic impact would substantially offset our historic level of profits.

We may, however, be forced to install the same new equipment to meet the levels set for the year 2004 that we will ultimately need for the 30 ppm standard. If that turns out to be the case, we would effectively lose the small refiner advantage and would be competing for funding and for engineering and construction expertise in order to install

expensive current technology.

Therefore, we request some flexibility in the proposed regulatory structure for the year 2004. In our written comments, we hope to propose some mechanisms to facilitate such flexibility. At a minimum, we believe that small companies should have the ability to appeal to EPA for a higher sulfur level if costs outweigh the benefits of hitting a specific target number.

Third, as the rule now stands, there is apparently an opportunity for only one two-year hardship extension. We are fully committed to comply with the national sulfur standards. But our concern is that new technology may not be commercially proven and available at reasonable cost by that time.

Because the comment period of the gasoline sulfur proposal will end before enough facts are known about the new technologies, we request that EPA specify that the hardship waiver can be renewed after the initial two-year period if warranted by small refiners' facts and circumstances.

Finally, we are aware of EPA's intention to issue new diesel sulfur regulations by year-end. If we are required to meet more severe gasoline and diesel sulfur standards in roughly the same time period, we will be forced to shut down.

We respectfully request that EPA initiate a SBREFA panel process for the small refiners who may be impacted by the diesel regulation.

Thank you for the opportunity to address this hearing. We would be happy to provide additional information at any time.

OGE: Thank you. Mr. Tom Plant. Good afternoon. PLANT: Thank you very much.

And thank you for allowing me to speak today to recommended Tier 2 emission standards proposed by the EPA.

My name is Tom Plant, and I am a State Representative for Colorado's 13th House District.

My district encompasses one of the highest growth regions in the United States. The corridor between Boulder and Denver currently accommodates approximately 65,000 average automobile trips per day. That number is expected to increase to 127,000 average trips in the next 12 years.

Combining this rapid growth and expanding commuter distances with the unique atmospheric challenges posed by the geography of the Front Range, we stand at a cross-roads with respect to Colorado's air quality. The Tier 2 standards go far in addressing these challenges.

The new standards recognize changes in our driving habits and realities of automobile use that did not exist when the initial standards were enacted. SUVs and light trucks, for example, are primarily used as commuter vehicles

today, in contrast to their status as work vehicles in the past. Advances in technology have made moot the claims that passenger emission standards cannot be met by SUVs, light trucks and minivans.

Finally, our knowledge of the potential health effects of increased emissions cannot in good conscience be ignored. The Tier 2 determination that light duty trucks should meet the same standards as passenger vehicles recognizes realities of technological advances in current usage trends. When emissions and fuel economy standards were first adopted almost 30 years ago, LDTs constituted less than 20 percent of new car sales, and were used primarily for hauling and work purposes. Today, the national figure is close to 50 percent. And while I don't have the data for Colorado, we can safely assume that the figure is significantly higher here.

Technologically, we currently have the ability to easily make these vehicles comply with proposed Tier 2 standards.

In California, engineers were able to modify the Ford Expedition, a vehicle that's in the heaviest of the LDT categories. And even utilizing the vehicle as a work truck reduced the air pollution levels by 90 percent from current standards simply by re-programming the air fuel system and adding a more durable catalyst. The total estimated cost was \$200. On a vehicle where the average profit margin for the manufacturer is on the order of \$15,000, this is a minor investment, and should reflect no increased burden on the consumer.

The recent Concerned Scientists Study determined that LDT loopholes have resulted in an additional 5,000 tons per day of smog-forming pollutants in our air, equivalent to the pollution of 40,000,000 cars, or five times the number of cars sold last year.

If we continue to allow pollution exemptions for LDTs, the gap between cars and LDTs will continue to broaden as cars become cleaner under the National Low Emission Vehicle Program.

There's no technological sticking point, nor financial barrier to these improvements. It's clear from the evidence, the light duty trucks represent the new passenger cars of choice and should no longer qualify for a special pollution exemption.

The sulfur levels in gasoline severely limit the performance of the catalyst on the advanced technology vehicles. Increased emission of hydro-carbons, nitrogenoxides, carbon monoxide and fine particulates. It's imperative that we mandate an increase in sulfur levels nationwide as a matter of public health. And similar standards are being enacted this year, as you know, in most

northeastern states.

Diesel emissions which were excluded from most of the Tier 1 standards should be included in the requirements of Tier 2. Diesel vehicles should meet the same emissions requirements as gasoline vehicles. Nitrogen oxides and diesel exhausts have been identified by the National Institute for Occupational Safety and Health, and The Agency for Research on Cancer as a carcinogen.

Furthermore the soot particles present in diesel exhaust, the ultra fine particles penetrate deeper into the lungs than the larger particulates and are known to cause serious respiratory damage.

Finally, with respect to diesels there is a move to replace the current low efficiency gasoline vehicles with diesel to meet the corporate average fuel economy standards or the CAFE standards. The high fuel economy ratings belie the other highly damaging emissions from these engines. This is a dangerous trend. Technology exists for diesels to simultaneously improve fuel economy and achieve lower emissions.

Public opinion is clearly behind the Tier 2 standards. In a 1998 Lake, Snell, Perry and Associates Poll, it showed that 91 percent of the public agreed that LDTs should meet the same emission standards as other passenger vehicles. Even 87 percent of SUV owners and 92 percent of the minivan owners agreed. 88 percent of those polled said diesel and gasoline engine should meet the same standards. 91 percent would pay up to three cents per gallon more for low sulfur gasoline and nearly 70 percent would pay five cents more.

I encourage the EPA to continue to pursue these updated standards, and I appreciate the opportunity for public comment and hope we can work together to markedly improve the air quality on the Front Range of Colorado and for the United States.

OGE: Okay. Mr. Lynn Westfall, good afternoon. WESTFALL: Good afternoon.

My name is Lynn Westfall and I'm the Director of Development for the Ultramar Diamond Shamrock Corporation, or UDS for short. UDS is one of the largest independent refiner/marketers in North America with seven refineries, totalling almost 700,000 barrels a day of crude capacity, one of which is here in Denver, Colorado, and approximately 6,000 branded retail outlets.

UDS has always believed that active, constructive involvement in regulatory process produces a result that benefits all parties. So we certainly appreciate the opportunity to be here today to comment on the EPA gasoline sulfur reduction proposal.

In the past we have been actively supportive of

numerous regulatory efforts. From our Wilmington, California refinery, we were the first company to commercially produce the ultra-clean California CARB Phase 2 gasoline. We spent over \$300,000,000 at that facility to convert 100 percent of its gasoline production to this vitally important, cleaner burning fuel because California has a unique air quality problem that requires a unique solution.

We are voluntarily supplying the San Antonio market right now with low RVP gasoline, 7.8 psi versus the required 9 psi specification. In a market where we supply 50 percent of the gasoline, we feel compelled to provide a regional solution to continue compliance in the largest metropolitan area in the United States currently in compliance with clean air standards.

Using this same philosophy, we are supplying the Denver market voluntarily today with low RVP gasoline to do our part for cleaner air in this area.

We have supported past regulatory efforts because they have been, number one, based on sound science; and number two, designed to provide localized solutions to localized problems. We now found, however, that we cannot support the current sulfur reduction proposal because it fails both of these tests.

First, we find no compelling scientific evidence to support a sulfur level as low as 30 ppm anywhere in the U. S. with the possible exception of California. Even the current EPA proposal allows 80 ppm cap on sulfur content, therefore recognizing that a consumer in any area of the country may actually fill their tanks at this higher level at any given time.

Furthermore, by averaging sulfur content among refineries, a large Gulf Coast refinery could generate enough leeway for a smaller inland refinery to produce 80 ppm sulfur gasoline for long periods of time. In essence then, EPA itself already recognizes 80 ppm as an acceptable level for long term sulfur content, so what then justifies the 30 ppm level?

Secondly, we cannot support the current sulfur reduction proposal because the nationwide sulfur standard is most certainly not a localized solution to a localized problem. For the first time EPA is forcing all areas of the country to comply with a standard designed for an area with the worst problem. Had this philosophy been used in the past, all areas would now require reformulated gasoline, whether or not they were in compliance with clean air standards.

In the real world, how can industry or government allocate limited resources to areas requiring the most attention when all areas are treated the same?

Furthermore, data presented by both API and NPRA

confirmed that regional differences can be accommodated through automobile catalyst recovery when traveling from an area of price over content to an area of lower sulfur requirements. This failure to recognize localized needs is especially harmful here in PADD IV, the Rocky Mountains, where we are today.

PADD IV is least in need of cleaner air regulations. It is the only region in the country without a single RFG mandated or RFT opt in area. Furthermore, it is a region where the refining industry can least afford to make these unnecessary investments. The average size of a refinery in the Rocky Mountains is only 40,000 barrels a day, and the largest is only 60,000 barrels. This compares to an average size of 170,000 barrels a day on the Gulf Coast where the largest refineries are almost 500,000 barrels per day in crude capacity.

What this means is that refiners in the Rocky Mountain area must spread their investments over a low-cost basis, therefore raising their per-barrel investment cost.

We currently estimate that the compliance cost for our UDS Denver refinery will be about one and a half times greater than the per barrel cost of our Gulf Coast refinery. When smaller refineries are disadvantaged on a per barrel basis versus large refineries, the economic trend favors supplying from larger refineries via new pipeline capacity and the eventual shutdown of smaller, regional refineries.

Therefore, failure to account for regional differences in air quality affects more than just air quality. It affects regional pocketbooks and regional jobs Even within the PADD IV area itself the current proposal significantly disadvantages one class of refiners, large companies that own small refiners.

The current proposal provides an exemption for small refining companies covering 17 refiners in the U. S., whereby they may delay their investment decision for up to six years versus a company such as UDS. Five of these refineries are in PADD IV, and they represent a combined 31 percent of the number of refineries, and 17 percent of the crude capacity. In other areas exempt refineries represent no more than two to four percent of the regional crude capacity.

In the Rocky Mountains, therefore, almost one-fifth of our competition will be significantly advantaged over the UDS position at our Denver refinery. Not only could these advantaged refineries have up to six years of lower operating costs, but they could have a perpetual cost advantage by being able to wait for improvements in sulfur reduction technology.

UDS, therefore, has been placed in the worst possible position with this proposal when it comes to our

Denver refinery, because it's a small refinery in the Rocky Mountain area, owned by a large company. This then is what UDS feels is wrong with the current proposal. So what do we think would make it right?

First, we would like to see regional specific sulfur standards based on regional specific air quality issues. While we agree that no regional sulfur level should be so high as to permanently damage automotive catalytic converters, we find no compelling scientific evidence that this necessary upper limit is 30 ppm. We continue to support the positions taken by APA and NPRA on the allowable levels for sulfur in gasoline. At the very least, a further study of regional issues and maximum sulfur content appears justified.

Second, we would like a level playing field whereby all refineries must meet the same standard at the same time, or exemptions are granted based on the size of the refinery, not the size of the company. If exemptions are allowed, we would expect them to be granted only to facilities that have a plan to invest to obtain the lower sulfur requirements, and would also expect a follow-up program to insure that these facilities are meeting their investment milestones over time.

Using an example of California, small refinery exemptions there require the filing of a compliance plan with both construction and financial milestones which are monitored and updated annually. Failure to meet any milestone would have resulted in immediate cancellation of the exemption. Granting exemptions without these requirements could allow these refineries to reap a windfall over a long period of time with no intention of investing for lower sulfur, and then close their refinery the day before compliance becomes mandatory for them. By then the damage could have already been done to disadvantaged refiners like UDS, who found they could not compete on a cost basis, and were forced to permanently close their facility. Surely this cannot be the intention of any exemption program. But may well be the unintended result if changes are not made to the current sulfur reduction proposal.

Thank you for the opportunity to speak to you today.

OGE: Thank you. Mr. Nick Johnson.

JOHNSON: Thank you. OGE: Good afternoon.

JOHNSON: Good afternoon. My name is Nick Johnson, and I am the clean air advocate for the Colorado Public Interest Group or COPIRG. COPIRG is a Colorado based consumer environmental watchdog organization active across the state. And I'm here today testifying on behalf of COPIRG and our 40,000, plus, statewide citizen and student members. I greatly appreciate the opportunity to speak to you today on

this important and timely issue, and would especially acknowledge Mary Manors. I thought that was a cover E-mail name. It's good to see a real person. Hi Mary.

It's summer time here in Colorado, and that means ozone season is upon us. To gear up for high ozone levels, the Colorado Department of Health and Environment has joined forces with the Regional Air Quality Commission to put a system in place that helps warn people when it's unsafe to go outside. Why would such a system be necessary in Colorado? Well, because contrary to what some have said earlier today, Denver and other western cities do indeed have air pollution problems. And if this summer is anything like 1999, we can expect frequent violations of the federal health standard for smog. And not just here in Denver, but throughout the Front Range and some mountain communities as well.

Last year, the standards were exceeded in Colorado on eight separate summer days. What this means for people living in these areas is that they could experience declining lung function as a result of breathing the air in their communities.

For a state like Colorado, this fact is ironic at best and tragic at worst. Coloradans love hiking, jogging and running, and anything it seems that involves being in the outdoors. Yet because of unhealthy smog levels, normal healthy adults might have to curtail outside activity to protect their health. And for children, the elderly, and asthmatics, high smog days could mean missing important things, such as work and school, and perhaps even visits to the hospital, to the emergency room.

Therefore, new standards requiring clean cars and clean gasoline are not just a good idea, they are absolutely essential to protecting public health.

According to the Regional Air Quality Control Council, automobiles are the single largest source of smog forming pollution in the Denver metro area creating nearly 40 percent of the nitrogen oxides that cause smog formation. While today's cars are cleaner than those of two decades ago, Coloradans drive considerably more miles per year than ever before.

Just to put this in perspective, in 1970, Denver citizens drove about 20 million vehicle miles per year. By 1990 that figure had jumped to 38 million, and now the Denver Regional Council of Governments predicts that by the year 2020, Denver area citizens will drive about 74 million vehicle miles a year, and that is a rate that's growing at twice the rate of population.

In addition, Coloradans are driving bigger and more polluting vehicles than ever before with nearly half of all cars sold at least nationwide being construed as part of the light trucks or SUV division, which are allowed to pollute up

to three times more than other passenger cars.

So together, the proposed Tier 2 standards and gasoline sulfur standards comprise a strong integrated approach to reducing pollution from automobiles.

And a concern for time because Angie Farley of the United States Public Interest Group did go before me, I'd just like to quickly reiterate some of the aspects of the program which we very much applaud.

So very quickly, first we applaud the overall significant reduction in pollution from the average automobile that would be realized through Tier 2 programs. With the rate at which population vehicle mile travels are growing in Colorado, cleaner cars will be immensely beneficial to Colorado's health, the quality of air.

Second, we agree with EPA that popular sports utility vehicles must be treated no differently for pollution purposes than cars. By having SUVs, minivans and pick-up trucks meet the same tailpipe standards as other passenger cars, Colorado alone could avoid 25,000 tons of nitrogen oxide pollution each year.

And third, we agree that a nationwide sulfur standard should be adopted to prevent the poisoning sophisticated new pollution control equipment.

We believe that EPA's proposed gasoline sulfur standard allows too much time to pass before significant air pollution benefits can be expected. In 2001 auto makers will begin nationwide marketing of low emission vehicles under the national low emission vehicle program. The effectiveness of the emission control technology used in these vehicles will be compromised by the sulfur that will remain at high levels until 2004 through 2006 under EPA's proposal.

A strong first step, EPA's Tier 2 proposal should be strengthened before it becomes final later this year. I will highlight two important changes that should be made to avoid complication delay in the continuation of undesirable loopholes in automobile pollution regulations.

First, EPA proposed allowing SUVs weighing between 6,000 and 8500 pounds an extra two years before the Tier 2 standards apply. EPA's proposal gives these models until 2009, a full decade from now, before their exemption from clean car standards expires. We believe that special standards for larger SUVs should expire immediately.

And second, EPA's proposal does not address pollution from the largest and dirtiest SUVs overall. Those in the weight class of over 8500 pounds.

We believe the Tier 2 standards should apply the same .07 nitrogen oxide average to all classes of passenger vehicles, including those over 8500 pounds.

And finally, I would again like to thank the EPA for allowing me this opportunity to comment on proposed Tier

2 and gasoline sulfur standards.

I do have with me in the other room signed post cards from over 2700 citizens from across the southwest, not only from Denver, but other states such as New Mexico and Arizona. And would like to present you with those post cards. I'm not sure to who or where, at the end of this.

OGE: Ted will take care of them.

JOHNSON: At the end of this testimony. So again thank you very much. I look forward to submitting written comments.

OGE: Thank you. Mr. Mike Astin, good afternoon. ASTIN: Thank you, good afternoon.

My name is Mike Astin. I'm the Senior Environmental Health and Safety Manager for Inland Refining. Inland Refining operates a small refinery in Woods Cross, Utah. I've submitted my comments, and I'm not sure whether you have copies of them or not, but what I'd like to do is draw an analogy and kind of emphasize what I have in those comments.

I think most of us probably—I'm not going too far out on a limb if I say most of us own a car. If we could imagine for a minute that all of us own a car, and it's a pretty good car. It's an older car. It is well-maintained, it runs well. Every year we take it in for the emissions check, it passes easily. But because it's an older car, it—the insurance on it is pretty inexpensive. And it's paid for. So it's good to have.

Our neighbor also owns a car. It's also an older car. But it smokes every time he pulls away, and we can't for the life of us understand why on earth that thing can pass the emissions test every year.

Well, while our cars are parked out on the street one day, one evening a drunk driver comes down the street at a high rate of speed out of control and strikes those cars and totals them both. The insurance company tells us not to worry, it was not our fault, and therefore, we will receive the entire market value of our car in compensation. Unfortunately, because it's an older car, we get \$730.00. Now we're faced with the proposition of having to replace our reliable clean car for \$730.00. And we can't do that very well.

The insurance company also has a provision that recognizes that, and some people may lose their good car, their good transportation and not be able to replace it. And they have additional compensation available for those instances with a few provisions, and one of the provisions is that your car must have failed the emissions test for the past two years, and have required substantial maintenance in order to get it to pass that emissions test. Well, our car did fine on the emissions test, so we're not available for

that additional funding from the insurance company. So again, we're stuck.

Our neighbor, however, with his smokey car manages to get enough from the insurance company that he can go out and buy a one-year-old used Pontiac Grand Am, and he's looking pretty good right now.

We're looking at alternative transportation modes, and where the bus routes run, and realizing that they don't run close to where we work. We may have to leave a couple hours early in the morning just to get to work, or lose our job.

Now, let me tell you how that applies to Inland Refining.

PRESIDENT: Thank you very much. I'm getting tired of that one.

UNIDENTIFIED SPEAKER: This is a fascinating--OGE: Supposed to be quiet.

ASTIN: Inland Refining for the last several years we have operated using feed stocks that are low-sulfur crude. Using that low-sulfur crude we can produce a gasoline that not only meets the proposed requirements of the standards, but also does a little bit better than that. However, our feed stocks have varied in the past, and at times in the past we have used high-sulfur crudes.

We have no guarantee in the future what we're going to be able to use for those feed stocks, so if this proposed regulation goes through as written, we're going to have to be able to put in some type of equipment to cover that contingency if we have to move to higher sulfur crudes.

Now, the EPA has allowed us some flexibility in there. First of all, it's going to cost us a substantial amount to put in that equipment, to remove that sulfur from those higher sulfur crudes, so we have to handle them. Our last significant expenditure was for a piece of process—or a process unit that removes sulfur from diesel fuel so that we can produce a cleaner diesel fuel. We haven't paid for that one yet. It's highly unlikely that we're going to get additional funding from our bankers in order to be able to handle additional equipment to remove sulfur for gasoline production also.

For those contingencies there's a couple things that we have in the proposed rule that cut us some slack. One is for small refiners. As I mentioned, we are a small refinery. However, we're not eligible for that because we've produced gasoline at less than 30 pints per million for the last two years. So according to that rule we still have to meet the same deadlines as if we were a large refinery.

It also allows us--allows for sulfur credit, sulfur allowances if we meet those requirements early. Again, we're not eliqible for that because we had low sulfur for the last

couple of years.

If the sulfur rules goes through as proposed, it is highly likely that we will be out of business and our refinery will close, which seems kind of funny since we're one of the refineries that has been producing the low sulfur gasoline. So we don't have really too much of an option here. We're not subject to the allowances in the extended time, even if we can get the funding in that time period to add that equipment. I hope that our situation is also taken into consideration when you finalize the rule.

I appreciate the opportunity to speak. Thank you very much.

OGE: Thank you. I really apologize about the music next door. Have no idea what's going on, but we tried to keep it under control. But thank you for your testimony. Thank you for coming forward today. And we hope that his letter goes to the docket. Thank you very much.

We're doing good with time so we will move forward to our 2:45 group of panelists, and I would like to call Ms. Nina Dougherty. Mr. Bill Robb, Mr. Bill Nasser, Ms. Deborah Kielian, Mr. Greg Casini, and Mr. Bob Neufeld. And also I would like to call Ms. Bonnie Rader, if she's still--she--please come forward. There's an extra chair.

We start with Ms. Nina Dougherty. Good afternoon. DOUGHERTY: Good afternoon, and thank you for this opportunity.

I am Nina Dougherty. I am chair of the Utah Chapter of the Sierra Club. I live in Salt Lake City. I am also on the Sierra Club's National Air Quality Committee.

I wanted to say that I will focus on several issues, in particular on the need for a national strong standard for sulfur in gasoline, low sulfur in gasoline. However, I also want to mention that I certainly support the comments, the more comprehensive ones made by the Sierra Club and the Clean Air Network at the other hearings, and in writing.

In particular, on the--a red flag goes up for me when I hear that we don't need a strong national gasoline sulfur standard. And therefore can't have or fully enjoy the benefits of new cleaner cars in the west, because supposedly we don't need to worry about air pollution. As all lonely cars are on lonely roads in Wyoming and the population is rather sparse here and there.

As one of the 1.6 million residents of the rapidly expanding and polluted Wasatch front of Utah, I cannot let this myth of how most of the people live in the West go unchallenged. Most of the population of the west lives in very rapidly-growing, sprawling auto, increasingly SUV, dependent urbanized areas, either on the brink of exceeding air quality health standards or actually exceeding the

standards. An increasing number live in burgeoning auto SUV dependent tourist areas near the national parks.

Equally I would certainly commend EPA for proposing a strong national gasoline sulfur standard and for adhering to the Small Business Administration definition of a small refinery. Please stay firmly committed to these aspects of the proposed standards.

I am, however, concerned about the various flexibilities allowed small refineries. The delays, the market trading scheme, and leniency for various factors, especially if, hopefully not, the definition of small refinery were to be drastically weakened to refer to the number of employees at a small facility of a large company.

I think we need to look at the Wasatch front as an implementation case study. All 15 of the refineries in the Rocky Mountain area, PADD IV, are small refinery facilities, even though many are part of a much larger company. Five of these small refineries, one-third of them in PADD IV, are located right along the Wasatch front in our ozone maintenance area. We were not only on attainment, we're barely maintenanced at this point in time. And these are located within the populated area, right up against the mountains, basically.

These refineries, plus one in Wyoming, supply most of the gasoline used along the Wasatch front. If these refineries were each allowed to delay producing low sulfur gasoline because they are defined as small, or they obtain credits from their parent companies, the current 1.6 million people along the Wasatch front would be confined to higher sulfur gasoline, and would continue to not get the full benefit of emission controls on their vehicles, or to be able to use much cleaner, new generation cars, as well as to continue to be subjected to the emissions from the refineries until perhaps we're rescued by market forces, such as a pipeline bringing gasoline from Texas refineries that's been proposed, or perhaps EPM is going to rescue us. We don't know that. We don't know that. We feel like we are sort of trapped in the thiefdom, that we're being held hostage by a monopoly denying us access to the fuel that we need.

So the many tourists—we also have many tourists coming through Salt Lake and through Utah, often obtaining cars or driving their own car from California. And they too would have problems with poisoning, since supposedly we would have to continue to be this rather unique case where we are confined to using higher sulfur gasoline.

A case by case look at individual small refineries could miss the bigger picture of a large urban polluted area that's rapidly expanding, getting almost all of its gasoline from small refining facilities that have been allowed to delay the soft rise in gasoline.

Focusing on how to help small refineries survive rather than on how to help the population reduce emissions from mobile sources might also ignore and interfere with market forces, such as I mentioned the pipeline coming in, perhaps the refinery failing, for other reasons than the sulfur reduction issue. A firm national standard with cautious judicious flexibility is called for.

Should we be concerned about air pollution along the Wasatch front? I've heard that supposedly there are no areas west of the Mississippi that were going to possibly be a commodity for the new standards. I find that very difficult to believe. Last summer we had exceedences of the eight-hour ozone standard on 21 days. We exceeded the one-hour standard at four monitors on two separate days last summer.

The Director of the Division of Air Quality sent a memo to the Air Quality Board stating during the summer of 1998, our VOC emissions were near the bottom of the projection curve, and we still exceeded the ozone standard. She also said, in emphasizing the need to reduce ozone precursors, we have been violating the ozone standard or just barely meeting it for years all along the Wasatch front.

Although we have had several clean years with regard to fine particulates, we have a history of persistent winter inversions with very high levels, very dangerous levels of PM 2.5. Including nitrates formed from rocks, from mobile sources. The 1.6 million population of today is expected to expand to 2.7 million by 2020. And to 5,000,000 by 2050. Vehicle miles traveled are expected to continue to grow at a faster rate than the population. Do people along the Wasatch front want cleaner cars and low sulfur gasoline? Yes. People care about air quality. It's the number one issue with regard to our current Envision Utah process.

The Wasatch Front Regional Council, which is the MPO, the Metropolitan Planning Organization, through much of the Wasatch front, is relying on cars getting cleaner all the time. In their recent communique, they have recently stated that. And they show a curve. It just goes down, down, and talk about the Tier 2 standards forthcoming.

One of their major strategies to determine conformity of their transportation plans with the air quality plans was to use the M-LEV module with Mobile 5-A. They have acknowledged that low sulfur gasoline is needed to get the most benefit from LEVs.

The Salt Lake City Tribune, the main paper in town, published an editorial in February supporting a strong nation-wide reduction of sulfur in gasoline, as well as much better controls for SUVs.

I'll just mention the SUV issue as well, and also the visibility. Utah, apparently Colorado, and probably the

other western states, went over the 50 percent mark in sales of SUVs versus cars before the national average hit that mark last year. It's been more than last year. We've had additional years. They are being used as commuting vehicles from sprawled out suburbs as well as for some rugged road driving. They must represent well over 50 percent of the vehicles in tourist towns and the national parks. There should not be an exemption for the heaviest SUVs nor delay in achieving the tighter standard of the mid-way SUVs. The health of urbanites and as well as visibility in class I areas is at stake.

And again I'd like to emphasize that visibility protection is important, that clean air does include clear air in the Class I areas, not just air that meets the max in the more urban area.

We have haze which we are required to clean up, and we want to clean up. Cleaner cars and SUVs with the necessary lower sulfur fuel, whether operating in large numbers in somewhat distant urban areas, or in or near Class I areas are important for protecting visibility.

Thank you very much.

OGE: Thank you. Mr. Bill Robb. Good afternoon.

ROBB: Good afternoon. My name is Bill Robb and I'm Group Vice President for the Base Oil and Specialty Division of Pennzoil-Quaker State Company. I appreciate the opportunity to testify before this hearing.

Pennzoil-Quaker State has serious concerns about the potential impacts of this regulatory proposal, especially on small niche refineries such as ourselves.

As an environmentally responsible company, Pennzoil-Quaker States supports the efforts to improve air quality, and appreciates the difficulty in balancing the various interests on this issue. However, we urge that careful consideration be given to the potential consequences that these new rules will have on small refiners. We believe therefore, that implementation of the rule should distinguish among facilities based on capacity size, and the fact that gasoline may not always be a primary product of these refineries.

Pennzoil-Quaker State has many comments and concerns about this proposed rule-making and will submit written comments for the docket. Today, because of time limitations, I will focus on the single most important issue to Pennzoil-Quaker State, the viability of small niche refineries.

At the outset, we appreciate the EPA raising a number of issues in the preamble for comment regarding the criteria for small refiners, and for those primarily engaged in the production of lubricants. Pennzoil-Quaker State is unique among refiners because of its heavy emphasis on the

production of premium lubricants. In order to make these premium lubricants, waxy crude oils are refined to maximize the quantity of lube oils, kerosene solvent, waxes and other specialty products while producing smaller quantities of gasoline than the typical refining process.

The EPA should consider special situations such as small niche refineries for which gasoline is not the primary product, as similar to small refiners. The Pennzoil-Quaker State refinery in Shreveport, Louisiana is a good example of a small niche refinery. This refinery has a crude throughput capacity of approximately 46,000 barrels per day and is operated as a lubricant base oil and wax specialty plant.

Most typical refineries maximize the production of light transportation fuel such as gasoline from every barrel of crude oil processed. To do this, a fuels refinery cracks gas oils and other heavy materials to lighter transportation products. The Shreveport refinery on the other hand, primarily uses a lube vacuum distillation unit to tailor-make it's gas oils for base oil and wax manufacture. The gas oils are purified into base oils for blending into premium motor oils, other finished lubricants and specialty products.

Gasoline is also produced as a by-product during the distillation of the crude oil. As a result, there is a relatively low ratio of gasoline to base oils and specialty products produced at Shreveport when compared with typical industry refinery. The capital dollars required to comply with the low sulfur gasoline proposal will therefore be spread over a much smaller gasoline volume at Shreveport, without benefitting our primary products. Nonetheless, the capital must be spent to continue to operate this refinery.

The proposed rule asks whether additional criteria should be used to define "small refiner" beyond the definition used in the SBREFA process. We believe that, in addition to this criteria which gives special considerations to refiners with 1500 employees or less, capacity should also be used for determining what is a small refiner. This proposal, using the SBREFA criteria limits the small refiner extension to 17 refineries across the U. S., of which all but eight are said to be nearly in compliance with the proposed rule. The proposal provides these 17 refineries with an interim standard for four years. We believe that this proposal does not provide adequate relief to these facilities, nor does it correctly identify all small refiners and refineries that require relief.

To address this issue, we propose the EPA use the approach to identify small refiners which has been used historically by both EPA and Congress in such programs as gasoline lead phase-down, acid rain credits, and the small refiner diesel initiative. This approach would be based on a double capacity cap that would include both the capacity size

of an individual refinery, as well as the total capacity of all refineries owned by a given company. It would provide relief for refiners that have 50,000 barrels per day maximum crude throughput for an individual refinery. It also has a limit of 137,000 barrels per day crude throughput for a total refining capacity by an individual company, thus identifying only truly small refiners. This proposal would increase the number of small refineries to 22 from 17. This increase represents less than one percent of the total daily production capacity in the U. S.

We strongly support the proposed additional four years for these refineries, refiners, to implement the new stringent standard. However, we do not believe that the proposed interim sulfur concentration standard is appropriate as part of this relief.

The proposed interim standards for small refiners will not provide the intended relief at small refineries unless the refinery already meets the proposed standards.

Any required meaningful change in sulfur content of gasoline produced at a refinery will required interim capital expenditures, changes in operating or blending processes or other income-reducing options. Each of these reduces the ability of the small refiner to focus its capital resources on the ultimate implementation of the low sulfur gasoline requirements.

If a refinery is required to install equipment to comply with a temporary standard, these capital dollars may be wasted when the new emerging technologies are available to comply with the final standards. Changes in operating or blending procedures can also substantially change the refinery product mix and reduce the overall refinery economics. Each of these options will materially impact the economic viability of a small refinery during the interim period, particularly since there will be little opportunity to recover the costs of these changes in the marketplace.

Furthermore, based on any small refiner definition, an interim standard or lack thereof will have very little impact on the nationwide gasoline pool, since small refiners produce less than four percent of the gasoline in the U.S., and generally serve small portions of attainment areas.

Pennzoil-Quaker State believes that refineries not producing gasoline as a major product and meeting certain other limitations should be eligible for small refiner status. The one-size-fits-all approach to gasoline sulfur levels advocated by some industry representatives, as well as some regulators, places an unfair and anti-competitive burden on both small refiners and those that make gasoline as a byproduct, such as lubricant refiners. These small refiners will be left with precious few options, since they lack both capital resources and necessary economies of scale.

Without allowing longer lead time for compliance or less stringent standards, the smaller niche refiners will be forced to make relatively large capital outlays, on the order of \$10-\$50 million dollars, that may never be recouped. The economic viability of these operations will be jeopardized, and will most certainly impact the competitiveness of the U. S. marketplace should any of these refineries be forced to cease operations.

Appreciate the opportunity to make these comments, and as I mentioned, we'll submit additional comments to the docket.

OGE: Thank you. Mr. Phil DiGrazia. Good afternoon. DiGRAZIA: Good afternoon. Thank you.

I'd like to start off by apologizing for Mr. Nassar who wasn't able to make it today. He asked me to testify on his behalf. And thank you for allowing me to testify today. I have a brief oral statement and ask that my written statement be included in the record.

My name is Phil DiGrazia and I'm a chemical engineer with Energy Bio-Systems Corporation, from The Woodlands, Texas. Energy Bio-Systems is a bio-technology company whose aim is to address major environmental and industrial issues through recent advances in micro-biology, genetic engineering and bio-engineering.

Most people are aware of the significant advances in genetics and bio-engineering in the pharmaceutical industry, and in agriculture. Our company, on the other hand, has positioned itself to be a leader in the third wave of the bio-tech revolution into the chemical and energy industries.

I'm not here today to validate, support or criticize the proposed EPA regulations of lowering sulfur standards in gasoline and diesel fuel. I am here to make you aware of new alternatives being developed by our company for achieving sulfur reductions in fuel that should impact the economics of producing low sulfur fuels.

The current technology, hydrodesulfurization, or HDS, that is now used to reduce the sulfur content in fuels unfortunately has many disadvantages.

First, it's old technology, having been in existence for over 40 years.

Second, it's enormously energy intentive because it requires high pressure and temperatures.

Third, because of its large appetite for energy, it results in large greenhouse gas emissions.

And finally, it's enormously costly to install, and very costly to operate.

Because of this, I can understand the reluctance of the refining industry where margins are thin to invest the billions of dollars to install such old technology with so many adverse implications. In fact, for smaller refiners, as we've heard from many today, the prohibitive cost of installing and operating this technology may well force them to close.

I would also like to point out that the EPA's goal of decreasing sulfur in fuels will result in a direct and adverse impact on the administration's goal of reducing greenhouse gas emissions.

We at EBC have developed a new process, which also promises to lower sulfur in gasoline and diesel. But at half the cost and without the huge increase in emissions inherent in the current technology.

Our process is called bio-desulfurization, or BDS. Basically, we've identified a micro-organism that occurs naturally in the soil, and can be modified to selectively eat sulfur out of gasoline and diesel fuel. The organism can also be enhanced to eat sulfur out of coal and crude oil, something that the current HDS technology cannot achieve.

There are several benefits of our BDS technology. On a Department of Energy fact sheet issued in January of this year states that, and I quote, "Bio-desulfurization will yield lower sulfur gasoline at lower production costs", end quote. In fact, our studies show that the capital cost for the BDS technology will be about half of the current technology, and that the operating costs of our technology will be some 20 percent lower.

In addition to the cost savings, BDS will result in up to 80 percent less greenhouse gas emissions, and a similar 80 percent reduction in energy consumption, compared to the current technology. This is because our process operates at essentially room temperature and pressure compared to the HDS that requires extreme to both temperatures and pressure.

Another benefit that our process yields is beneficial in commercially viable by-products. We can alter the enzymes that we use to produce surfactants from the sulfur, which currently sell for about 50 cents per pound and are used in a wide variety of detergents and cleaners.

Another by-product application that may result is in resins, polymer and other useful products.

In comparison, HDS produces either large amounts of elemental sulfur, or sulfuric acid, neither of which is highly valued commercially, thereby presenting an added problem to refiners.

The final benefit of our technology is the flexibility. It can be inserted at various stages of the refining process. In addition, it can be used in conjunction with existing HDS technology. For example, large refiners with HDS operations that are presently in use can tap into our technology to compliment their current operations to reach ultra low sulfur levels.

Our pilot products already have demonstrated the ability of our technology to reach sulfur levels of 75 parts per million, or less. And we believe that we can achieve 30 parts per million and commercial viability within the next three years, contingent upon the level of investment we receive. In fact, we're confident that we can also reach a sulfur level near zero using BDS.

While our technology is extremely promising, there remain hurdles. The primary hurdle being investment in research and development. With oil prices low, refining margins practically non-existent, and small capitalization stocks battered, we face an enormous difficulty in raising capital to complete our technology. To date we've spent some \$68 million dollars on our technology, about \$65 million of which came from the private sector.

In conclusion, this proposal will require enormous investment. I don't think there's any question about that. Because of the short amount of time, however, to reach the rule's targets, I'm concerned that the rule will lock industry into old technology that will be expensive, waste energy and result in vast increases in greenhouse emissions. We believe that the rule in the federal government should help to fully develop alternative technology such as biodesulfurization. Not only will refiners be the beneficiaries, but so will the environment and fuel consumers.

Again, thank you for allowing me to testify, and I'd be happy to answer any questions the panel may have.

OGE: Thank you. Ms. Deborah Kielian. Good afternoon.

KIELIAN: Good afternoon. Can you hear me okay?

My name is Deborah Kielian, and I'm the Program Manager of Mobile Sources for the Department of Environmental Health for the City and County of Denver. I'm here this afternoon to provide testimony on the recently proposed Tier 2 motor vehicle emission standards and program to reduce sulfur in gasoline, and on the agency's advanced notice of proposed rule-making on diesel fuel.

First, I would like to offer my commendation to EPA for developing such a cost effective and efficient proposal that addresses both fuels and tailpipe emissions. As one of several local agencies charged with the responsibility for achieving and maintaining healthy air in the Denver area, we understand significant achievements that will be made in cutting emissions from light duty vehicles, light duty trucks, and reducing sulfur in gasoline.

Denver has been creative in its efforts to attain carbon monoxide ozone and particulate matter standards, and we appreciate the impact these new regulations will have on decreasing emissions from our rapidly increasing population, and resultant increases in BMT.

For the proposed Tier 2 motor vehicle emission standards, we support the cost effective emission reductions, applying the standards to LDDs and light duty trucks, including SUVs, requiring the same emission standards for heavier vehicles as well as for cars and light trucks. And particularly for establishing fuel neutral standard.

There are, however, a few areas that we would like to see modified. As a representative of Denver, we would like to recommend that larger SUVs, vans and trucks, from 6,000 to 8500 pounds GBWR have until 2007 to comply rather than till 2007. Because of the increasing demand for these larger vehicles in the Denver area, and the subsequent impact their emissions will have on our air quality, we are concerned about the extra time allotted for these vehicles to comply. We see no reason to put the monetary and emission burden on smaller vehicles only. We suggest both smaller vehicles and the heavier SUVs, vans and trucks should play by the same rules.

Two, the participants in the averaging, banking and trading program should be required to meet their targets by the timetable provided. It may be inappropriate to provide an additional year for manufacturers to make up for any credit shortfall.

And three, we strongly encourage EPA to consider applying the Tier 2 standards to those SUVs, pickup trucks and full size vans that are used for personal transportation.

For the proposed gasoline sulfur control requirements, we support EPA's efforts. We also support the flexibility and incentives that have been included to minimize the cost too, and compliance burden on affected parties. We would suggest, however, that the gasoline sulfur standard take effect in 2004.

Concerning the request for comments on the reduction of sulfur in diesel fuel, Denver agrees that this is a critical issue that must be addressed. We would like to suggest that a national cap be adopted on sulfur in both onroad and non-road diesel fuel.

To conclude, we are certain that if the federal government hadn't made tough decisions concerning air quality standards years ago, we would probably still be in non-attainment for several pollutants today. We applaud the more restrictive standards that over the years have improved the quality of life in Denver. Again, we commend you for continuing to promulgate these air quality advances, and urge you to consider our recommendations.

Thank you for the opportunity to testify today.

OGE: Thank you. Mr. Bob Neufeld, good afternoon.

NEUFELD: I'm going to have real trouble with this. If
I might, I'm going to move this easel out just a touch
further so that I can be closer to this table where I have

some things to add to it. I'll try to turn it so that you folks here at the table can see it, too.

My name is Bob Neufeld. I'm the Vice President, Environmental and Governmental Relations for Wyoming Refining Company. We are a small refiner by the definitions of the rules. However, because we have done the analysis that Sally Allen was talking about, we have determined that complying with the interim standard is going to be as expensive as going to 30 parts per million. We've decided that the special relief for small refiners offers us nothing. We will have to be at 30 parts per million and make that investment by 2004, or go out of business.

I won't read my statement because I can't do it in ten minutes, so I will just cover a few points.

First of all, I would like to state, and I won't go into detail, that refiners, whether they are large or small, do not have the ability to pass these costs on to their customers in the same manner that field manufacturers do. And that those that are unable to recover all their costs are most likely to go out of business.

Second, I would like to talk just a little bit about the math pro study and put that to rest once and for all. Refineries will go out of business in PADD IV. And let's see if I can draw a line here on the map. PADD IV is essentially this area, which covers Idaho, Utah, Colorado, Wyoming and Montana. Refineries will go out of business in that area.

The PADD IV study is wrong in a number of respects, and if you have a copy of that study I direct your attention to Appendix B at the bottom of the first page of that appendix.

First of all, in estimating the inputs of the refineries in PADD IV, PADD IV assumed that imported fuel oil, whether it comes in from the pacific coast, gulf coast or the east coast over here, is going to cost every refinery in PADD IV the same. They use the national average cost for importing crude oil for all refineries in PADD IV.

Second, for domestic crude oil, they use the average cost price of crude oil at the oil lease in PADD IV as the domestic cost of crude oil for refineries in PADD IV. That's wrong. First of all, the refineries don't pay an average cost. They pay individual costs.

Second of all, not every refinery in PADD IV buys its crude oil at leases in PADD IV. We buy a significant amount of crude oil from the gulf coast, and so therefore, an average in PADD IV is really meaningless as to cost of domestic crude oil for PADD IV requirements.

Third, in determining how much it costs to get the crude oil from either the lease or some other place to the refinery, they use the national average cost of transpor-

tation for the refiners. Again, nothing specific to PADD IV.

In fact, the only piece of refinery specific information in the math pro study is how much oil did each refinery import from outside the country.

On the other side of the refinery gate, they use product average prices to determine what refiners are getting for their products for PADD IV. Nothing refinery specific. PADD IV averages as to product prices. That's what we're all supposed to be making.

And finally, they just guessed at what our costs were between getting the crude oil and putting the product out the gate. They had no idea. So they guessed at our crude oil prices, crude oil costs, they guessed at our product prices, and they guessed at the costs in between and came up with some sort of average that says that we're supposed to be able to afford gasoline desulfurization. I don't think the results are very reliable, and frankly, I would be embarrassed personally to rely on that study that refineries will not close in PADD IV. As one of the area directors of a region eight state said to me, "I hope the auto makers didn't pay a lot of money for that study. It's not very good." And that's the way I feel about it.

Now, this map represents the product distribution system in PADD IV. These three pipelines carry product into PADD IV from Eldorado, Texas—or Kansas, excuse. McKee, Texas. They are full capacity. There's no way to get additional product of any significant size into PADD IV. This pipeline is an eight—inch pipeline that carries product out of PADD IV, and I can't tell you much about it. It's owned by Synex. And it—I don't know what the capacity is. But by and large, if a refinery closes down anywhere along this loop of product distribution pipeline, it's going to affect prices everywhere in PADD IV.

In fact, history shows that when AMOCO Casper closed its refinery in 1991, the prices at three PADD IV cities rose above the prices down here in PADD III by about ten cents a gallon over a period of 12 years. That represents to Rapid City, South Dakota customers alone, where I have some product volume information, \$10,000,000 a year in additional taxes to pay for low sulfur diesel that closed down the AMOCO Casper refinery.

So what this proposal really represents is if refineries close, the tax on consumers in this area to pay for clean air benefits was probably not needed.

In fact, when I was growing up--I grew up in South Dakota--I used to look at all the magazine ads, and they'd say "Prices slightly higher west of the Mississippi." If this rule goes into effect, those ads are going to come back and they are going to say highest prices ever west of the Mississippi.

Now, I have a proposal that I think represents some thinking out of the lines, outside of the box. What I hope it doesn't represent is thinking so far out of the box that it's off the planet.

These states that I'm putting on the map, if they'll stay up there, represent states that have expressed an interest in regional standards. EPA's proposal to date has been focusing on how do we avoid irreversibility in catalytic converters. I'm going to suggest to them that you don't. You try to manage it instead.

I went to a hearing on May 18th in Washington, D.C. where Neddy Myers (phonetic), the Secretary of the South Dakota Department of Environment and Natural Resources, testified and suggested that we find a way of taking the catalytic converters on cars from this part of the country that come out to see Mount Rushmore and Grand Teton, and everything else, and find a way of servicing those catalytic converters, or replacing them, so that when the cars go back home, they burn cleanly again and meet their full emission performance standards.

At Neddy's request, I did a little back-of-the-envelope study and I didn't use this region, I used the NPRA, NPI western region, and came up with a result that indicates that the percentage of cars that are poisoned by high-sulfur fuel is used by EPA in this proposed rule, who in fact come into the API, NPRA western region and go back home.

The cost per gallon of western gasoline is going to be somewhere in the neighborhood of 1-1/2 to two cents a gallon, considerably cheaper-considerably cheaper than what we're talking about for gasoline desulfurization.

In addition, there is in the regulatory impact analysis a statement by EPA that says, flat out says, gasoline sulfur poisoning is reversible given the right combination of temperature and variation of air fuel mixture. Unfortunately, that's never going to happen on the cars when you implement the supplemental federal test procedures. begs the question, why not take the catalytic converter off the car, service it when the guy has an oil change--he comes in and you say, "Been to Mount Rushmore lately, Mr. Tourist?" If he has, take the catalytic converter off the Yes, no. car, service it on some type of machine that can be developed to provide that right combination of temperature and air fuel Put it back on the car after the oil change is done mixture. and send him on his way.

And I think it would be a lot cheaper for refiners in this area--these are states that have expressed an interest to pay for that than to put in gasoline desulfurization technology.

Along that line I have a letter here--one minute? Thank you. I'm doing very well, according to my plan.

Along that line I have a letter here dated June 15th from the Western Governor's Association. It's not a motion by the entire association, but it is signed by ten of their governors, and if you read between the lines, it basically says, "We're very concerned about small refineries in the west. Very, very concerned. We don't think enough has been done to take care of their special concerns." And they are directing the Western Regional Air Partnership to come up with some solutions to this problem. And the last sentence says, "These recommendations from the Western Regional Air Partnership must be considered before EPA develops a final standard."

And it's signed by Jim Geringer of Wyoming, Michael Leavitt of Utah, Terry Knolls of Alaska, Bill Janko of South Dakota, Dirk Kenthorn of Idaho, Ed Schafer of North Dakota, Gary Johnson, New Mexico, Kenny Gwen, Nevada, Mike Johansen, Nebraska, and John Kitzfaller of Oregon.

So even though they support national sulfur standards, they do believe that EPA and the states and refineries and the auto industry have some homework to do to try and solve the problems, special problems that exist in the west.

I give this to you. The second page is not very legible, but as soon, I'm sure since it's addressed to Carol Browner, you'll see a copy sooner or later. If not, I'll be happy to forward a copy to you.

Thank you very much, and if you have any questions to ask, I can answer them.

OGE: Thank you. Ms. Bonnie Rader. Good afternoon. RADER: Thank you.

My name is Bonnie Rader. I'm an average citizen, a resident and native of Colorado, and so are my children. And we can remember a time when pickups and SUV type vehicles were used for ranch and farm work, and you were considered a red-neck if you drove one. So it's quite a difference today.

I'm here to present the perspective of a person who is an average citizen that seems to always find themselves in the environmental trenches, all the way from Superfund to RCRA to federal facilities, and now clean air.

I want to commend the Environmental Protection Agency for allowing an average citizen the opportunity to participate in this process.

The proposed standards are vital to the well being of the average citizen and our living environment. I am here today to testify because I have some major concerns regarding the final implementation and follow through of the Tier 2 standards.

First, I'll tell you why this opportunity for the average citizen is so important. The average citizen does not understand this process. Most individuals are busy

making a living and raising their families. Most citizens cannot afford to take time away from work to participate in a forum such as this one, even though the majority of the citizens support cleaner air and less impact from traffic to their living environment. They think the new rules will fix everything.

However, the bottom line for industry is profits. Industry hires full time employees to lobby their position to the agency. These people have every day to knock on doors and participate in meetings with the agency. Their goal is to weaken the requirements of the laws and thereby allow companies to sell more cars, more gasoline, and to build more roads. These industry representatives are paid to represent the company and its bottom line profits. Under this scenario industry representatives will be allowed to work to weaken the rules on the basis that the new standards will harm business.

Any of you who are old enough and have been around long enough to remember the late 70s when Superfund and RCRA were being implemented will remember those days. I live by the Lowry Landfill Superfund Site, also a RCRA site.

During the time that the citizens were fighting to close the RCRA facility down, based upon the fact that we already had chemicals in the Superfund site and didn't need any more in our neighborhoods, Colorado industry met with EPA and Colorado government officials in private meetings. They told the citizens that they would be responsible for midnight dumping. They also told the citizens and industry government representatives that industry was going to go belly up if we didn't have a RCRA facility.

As a result, the citizens held their ground. The RCRA facility was shut down. Colorado industry did not go belly up. Midnight dumping did not increase. In fact, a survey done by the Colorado Department of Health showed that midnight dumping went down. Not one company went belly up.

I have no doubt that industry is overwhelming the industry with dire predictions and pleas for leniency on the Tier 2 rules now. My question is why should there be? Industry, states and municipalities have had years to prepare for these rules. Rather than prepare and make a change for the good that would protect the public good, they have spent the time looking for loopholes in the law to continue on with business as usual.

The Clean Air Act represents Congress' most ambitious attempt to alter the goals and strategies of the nation's transportation agencies. Under the Clean Air Act, the Administrator of EPA establishes national ambient air quality standards for ground level ozone, carbon monoxide, and other pollutants to protect the public health and welfare. The Clean Air Act attempts to address transpor-

tation planning with two main requirements pertaining to the conformity of transportation agency activities, and the incorporation of transportation control measures in SIPS. Neither of these requirements has had the intended effect so far.

Congress first included a conformity requirement in the Clean Air Act in '77. During the following 13 years, agencies essentially ignored the requirement. The current version of the statutory confirmity provision originated with the Clean Air Act amendments of 1990. It represents a concerted attempt by Congress to reinvigorate the pre-existing short, general, and ineffective provision of the Act. The amendments were necessitated in part by 20 years of failed efforts to control transportation sources of pollution. A case brought by Citizens for a Better Environment brought suit, and the court wrote that, quote, "The 1990 amendments are designed to insure that the conformity requirement is ignored no longer."

Specifically, one section of the Clean Air Act lists various transportation control measures. Under pre-1990 EPA guidelines, each of the TCMS listed in the act was presumed reasonably available and could be left out of the TIP only upon a showing that it would not advance attainment, would cause substantial and long-term adverse impact, or would take too long to implement.

More than six years after the enactment of the 1990 amendments the situation which the sponsors of the amendments sought to remedy remains unchanged. The authors of a review of post-1990 Clean Air Act implementation posts the question: "To what extent is conformity substantively shaping transportation investment programs and project selection?"

The response is, "Anecdotal evidence suggests that only a few areas have had to alter their transportation priorities to, quote, 'pass' the quantitative emissions tests of conformity." In addition, states have not included many TCMs in the SIP submissions they have made to EPA so far, and it appears unlikely that this will change during the remaining years of the Clean Air Act amendment implementation process.

The single most important obstacle to change has been transportation agencies who view that their mission is simply to expedite traffic flow, and to the fullest extent possible, to ensure the levels of traffic flow historically deemed attainable and desirable. Clean Air Act implementation would be proceeding on a different course if transportation agencies saw it as central to their mission to provide safe, convenient, and congenial bicycling and walking conditions, and to provide transportation alternatives to the gridlock that regardless what the agencies do, more and more motorists in urban and suburban areas will experience from

now on.

Transportation agencies that have defined mobility in terms of traffic flow and have refused to change their plans and spending programs to improve air quality are part and parcel to the success that industry will experience in weakening these standards. The American transportation policy is preoccupied with the movement of motorists passing through a neighborhood or town rather than with the interests of the residents, pedestrians or bicycles.

Yet it is the local or regional community that probably matters most to Americans, and the interest in protecting communities is a national one. The "motoring public" is a public in need of clean air with decent places to live and congenial places to frequent close to home.

Industry and official acceptance of the new approach to cleaning our air and protecting our neighborhoods can help undo the alienation from government that has become such a force in American life. Citizens who are dealing with pollution problems are encouraged when their government listens and works with them to find a solution.

I have included with this testimony a copy of a letter from the City of Aurora that I will not read. It was written in response to a request for traffic calming in our neighborhood. It is a prime example of all that is wrong with our system today. If traffic planners and engineers are dedicated to this type of a decision, and this kind of a decision-making procedure, the implementation of the Tier 2 standards in their strongest form is imperative. We need to implement them now. The need for that protection and the opportunity to provide it have never been greater.

Thank you for this opportunity.

OGE: Thank you. Mr. Bob Neufeld, please sit down. (Whereupon, Ms. Oge's microphone malfunctioned and her comments and questions cannot be heard.)

OGE: First of all, this question to Mr.-- (Whereupon, Ms. Oge's microphone malfunctioned, and her comments cannot be heard.) Thank you for your statement and your recommendations. (Tape is garbled and comments cannot be understood.)

DiGRAZIA: First of all, without releasing a great deal of confidential--

OGE: I understand.

DiGRAZIA: --information in this, our refinery is looking at a project that will make it more competitive. We are probably one of the least competitive refineries in PADD IV at this point. That project will increase our gasoline production, which means that to the extent that we produced volume over our average volume of '97 and '98, the interim base line that we have to meet between 2004 and 2008 will go down towards 30 parts per million. And in fact our base line

will drop in the neighborhood of about 25 percent.

The project, on the other hand, will drive our sulfur content upwards in order to--because it takes the least profitable portions of our crude oil barrel and cracks them into gasoline so that we can get a higher value out of that product.

So while our gasoline sulfur content is going up, our base line is going down, and we need to-we'll need to install some sort of sulfur control by October of 2003 in order to meet that interim base line. That sulfur control will be essentially the same capital investment as the sulfur control required to meet 30 parts per million across the board. So there is no relief under the small refiner proposal, even though we meet the definition for this company.

OGE: Thank you. Mr. DiGrazia, I thank you for your statement. I wasn't clear exactly what is the time frame that your company has in mind to make this new desulfurizing procedure available to refineries at the commercial level?

DiGRIZIA: For the gasoline technology that we're developing?

OGE: Yes.

With the current level of funding, we hope to DiGRAZIA: be in a position to be commercial in the three-year time frame that I mentioned in the testimony. Now, that is assuming--we're in the middle right now of a three-year, \$3,000,000 project funded by the Department of Energy. We've finished two years. We're going to go into the third year, but the third year of funding hasn't been approved yet, so that's contingent upon the third year funding. Now we believe that that will put us in a good position to meet the requirements for the small refiners, but as you know, you've heard several times today, refiners are going to have to make decisions to put capital on the ground within the next year or two in most cases, so if we're going to meet that market for gasoline, we're going to need substantially more investment to accelerate our development time.

OGE: So the issue for your companies is investing resources to expedite the development of this technology. Is your company suggesting that we delay the standards?

DiGRAZIA: Well, that's certainly an option. As I mentioned in the testimony, again we'd hate to see technology such as ours and some of the other newer technologies that are out there essentially be locked out because of the fact that there's inadequate time to test these technologies and give the refining comfort to implement them to meet the one to two-cent per gallon cost that you cite in the proposed rule.

OGE: Thank you. I'd like to thank all of you. I especially like to thank Ms. Bonnie Rader, the citizen of this wonderful city, for taking the time to come and share

your views with us. Thank you very much.

We will have, I guess we do have a speaker that just walked in. We would hear your testimony before we take a break. Ms. Maggie Fox.

FOX: Yes.

OGE: Good afternoon.

FOX: Good afternoon. Thank you.

I actually am taking Greg's place.

My name is Maggie Fox, and I am the Sierra Club's senior regional representative for the southwest regional states which include Arizona, New Mexico, Colorado, Utah, West Texas and Oklahoma.

Thank you for the opportunity to be here today. Mr. Casini will testify, but as a citizen, later on this afternoon.

Before I begin my remarks, I'd like to compliment the members of the panel that I should have been a part of, but just for a small delay. Particularly the gentleman you were just questioning from Energy Bio-Systems. I certainly couldn't pretend to know a great deal about his technology, although this particular field fascinates me, and I've spent a fair amount of time learning about it.

And I don't want to presume too much in my remarks, but I think that there is a little different way to look at it, which is that the Tier 2 rules relating to vehicles, as well as gasoline standards, actually acts as an impetus for his technology, and the very fact that he's here today, and the number of industry representatives who are here today is a good reason to believe that that technology may well be involved in resolving this issue and be a part of solving these problems.

I appreciate him coming, but I don't necessarily agree that this rule will do anything but actually implement that idea. It's a good one, and a much quicker fashion.

Interestingly enough, as everyone who has been a part of the clean air debate for all these years, including Ms. Rader and others and many people in this room, it seems that EPA is always in the business of the argument between too much, too quick from the point of view of industry, and too little, too late from the point of view of the environmental community and average citizens who live with the implications of these rules.

I think EPA did a pretty good job in this proposal. Obviously, there are parts of it that we would like to see improved. There are loopholes that I think EPA feels that it has needed to include in this proposal, which I think--don't necessarily agree with, but overall, the Sierra Club as an organization, is very supportive of this effort. And particularly the very simple notion which underlies this entire rule, which is the notion of implementing standards

for gasoline and cars as a system, and understanding how important it is to do that at the same moment, and recognizing the impact.

Particularly, I think that's not only important to the average citizen and our public health consequences, but it's also important to see how the industry is relating that. If you listened to the auto makers' testimony in Philadelphia and Atlanta, poison gasoline is the problem. And if you listen to the refiners, it's those evil automobiles. Somewhere in the middle are we, the drivers, and there are a lot of us.

I'd like to, because the Sierra Club as an organization will submit comprehensive comments, instead of going over that, which I think you've heard before in other cities, I'd like to confine my remarks this afternoon to just the whole notion of this regional approach.

I understand the gentleman from the American Petroleum Institute testified earlier last week that the regional approach was the only way to go. Well, I live here. And the west, it may or may not be viewed in accurate scientific fashion as cleaner than the east. But one thing we could agree on, I think, anyone involved in this debate, and that is that the west is growing very, very rapidly. And I think it could also be agreed upon by all parties that the west is growing rapidly for a number of reasons. Not the least of which is the quality of life. Inherent in that quality of life is air pollution, and the absence of it, as well as vistas.

People choose to come to the west, people choose to live in the west for a variety of reasons, many of which are lifestyle, and implicit in that lifestyle is the air that we breathe, the vistas that we draw. There's no one who got here today that didn't realize that they were in the west, even on a cloudy day. This wasn't achieved by the absence of EPA, and the absence of the air quality rules that we have lived with for years. And the City of Denver and the metropolitan region has worked very hard to implement.

Absent this proposal and a regional effort proposed by the refineries whose concerns we share, but we don't share the solution, we don't share supporting the solution that they are offering, we won't have a metropolitan Denver or a Salt Lake City, or other parts of the Rocky Mountain West that will either be healthy or that we will be able to see. And that is completely unacceptable to the citizens of these states, and everyone here knows that. The difficulty is how do you formulate a rule to make that possible. And I think EPA has largely done that.

Let me comment, having applauded your efforts to some extent on a few other pieces that we would like to see change, and I want to talk about for a little bit about the

two loopholes around the light trucks.

One is the whole notion of addressing these passenger vehicles over 8500 pounds. This--the delay in doing that until 2009 is very troublesome.

My children are in public schools in the metropolitan area, and it's quite remarkable the number of larger vehicles in the form of the Ford Expedition and the Chevrolet Suburban that show up in the school parking lot to load a lot of children in to take on field trips. They make a magnificent traveling vehicle for a lot of kids to go to field trips.

But it isn't a good idea with the number of those vehicles that are proliferating in the metropolitan area of Denver alone, not including the other cities in the west, in the region that I work. For those vehicles not to meet the same standards as the other light duty vehicles that are going to also be addressed in this proposal, and at the same time.

Clearly, Ford Motor Company in stepping up to the plate and volunteering to do this, shows that the technology is available. There is testimony earlier this week from a manufacturer's group that shows that these larger SUVs can meet these standards at the same time line.

And I would encourage EPA to look at that effort very, very carefully. That extended deadline just doesn't make sense because it gives an added dis-incentive to the industry or to the citizens. We actually are creating vehicles, the larger you are, the more exempt you are from air pollution requirements. That simply makes no sense. And in the long run will be a disservice to us.

The last piece is support of the notion of this fuel neutral proposal. But if you look really carefully at it, the details of the program reveal that special consideration was given to diesel. The dirtiest two bins in the Tier 2 program are not necessarily for gasoline engines. By including them in the Tier 2 program, EPA would in effect encourage the deployment of diesel engines, particularly in SUVs. Not on purpose necessarily, but as an effect. These diesels would not be as clean as gasoline is under Tier 2, though they would be certainly cleaner than today's diesels. And it's important to note that. Diesel exhaust is toxic and has been identified as a probable carcinogenic.

One of EPA's studies, as you know, is concluding findings that diesel exhaust is 200 times more toxic than it was previously believed to be. The use of engines whose emissions pollute our air and directly threaten public health runs counter to the entire purpose of the Clean Air Act, and particularly these Tier 2 standards. Auto makers hope to use diesel engines in SUVs because they are failing to meet even the existing weak fuel economy standards for light trucks,

with the exception of those, who like Ford, have agreed to step up to the plate.

In addition, the partnership for a new generation of vehicles is relying on diesel based technology. It should surprise none of us that auto makers are firmly behind standards that accommodate these diesels. But this compromise ultimately compromises public health. And the EPA really should not be giving it the green light if these standards, this technology cannot meet the high standard for gasoline engines.

In sum, as you know, I think we really support this program, and I'd like to just note that, as I understand it, you're trying to finalize these standards by the end of this year. We want to encourage that. We appreciate the difficulty of it. We appreciate the pressure that you're under. But if it doesn't happen by the end of this year, then the program doesn't begin until 2005, and in effect we move those deadlines further and further out.

Thank you.

OGE: Thank you, Ms. Fox.

We will take, let's see, we should take a 15-minute break, and we will be back to start with the 4:00 o'clock panel.

(Whereupon, a recess was held.)

OGE: We're going to start with our next panel. I'd like to ask for Mr. John Stern, please come forward. Ms. Michelle Robinson. I understand that Mr. Will Toor, the Mayor of the City of Boulder, is not going to be with us. Mr. Gregory Scott, and Mr. Stan Dempsey. You've got your names in front of you.

And we will start with you, Mr. Stern. Good afternoon.

STERN: Thank you. My name is John H. Stern and I'm Vice President and General Counsel of Country Mark Cooperative Inc. We own a 24,000 barrel refinery at Mount Vernon, Indiana on the Ohio River. And we distribute the fuels from that refinery up to the center part of Indiana, about a 240-mile pipeline.

First I would like to compliment the panel on their attentiveness today. I've watched you all day, and it's really heartening to see a panel that attentive. Hopefully, I'll make some points by saying that to you, and--. There's always a motive to madness for a lawyer, right?

I'd like for my comments as they are written to be made a part of the record. But I've heard so many comments today that track mine in so many different ways that I'm not going to bore the panel with going over those again.

I want to speak individually about my organization and our concerns. It's obvious that the refiners in general are not in agreement in many ways, whether they are big or

small. And when I came here today I really kind of thought that all small refiners were much the same. I haven't found one that's the same in any of their presentations, and I think that creates a real problem for the EPA in dealing with the small refiner.

Our small refinery has been in existence for almost 60 years, and started out to serve just the farming community in Indiana, and still does predominantly. We are the largest purveyor of diesel fuel for the off-the-road use on the farm, and we live and die in that market because that's about--we have about 70 percent of that market. And it's our premier fuel and makes the money for us.

However, out of that barrel also comes about 40 percent gasoline, so that becomes a real concern as to what we have to do with the gasoline.

We buy only Illinois basin crude, so we can't change our crude slate to different crudes, and we're not in a position--we could take it up the river, but that's not practical. We are the biggest buyer of crude in the Illinois basin since BP and Ashland Marathon pulled out. We buy practically all the crude in the Illinois basin, which is somewhere between 25,000 and 30,000 barrels a day. And it's a sweet crude. So we have a lot of people depending on us down there in that market. We issue somewhere between 6,000 and 7,000 crude checks every month to a lot of small people. We also serve 160 different small cooperatives throughout the State of Indiana. And we're owned by farmer cooperatives. We don't have any big stockholders. We don't have anybody to come to our aid when we need money.

We recently have been in the process, and to point out some of the problems of refinancing our long and short-term loans. And we had to go through four banks before we could get our short-term financing, and three banks to get our long-term. And each and every one of them raised the question, "Well, where do you stand on gasoline and diesel fuel sulfur phase-down?" They are very concerned about giving us money. We had to scratch and scrape and beg and almost, at times on the verge of almost giving up that we could raise the money just for our needs presently.

As a 24,000 barrel a day refinery, you've heard most refiners here say, there's just not much money in refining today. We don't own any crude oil. We don't own any service stations, so we're dependent upon buying the crude, making the product, and then selling it. And there is not a lot of money there. I can tell you that.

And when we have to look at the possibility of putting \$15 to \$20 million dollars in sulfur phase-down for gasoline, and then turning around and having to add probably another 10 to 12 for sulfur phase-down in diesel fuel, which is far more important to us, but we have to do both, we're

looking at a real chunk of money.

Now we've already just found out that we hardly may raise the money in the private sector just to carry our long and short-term financing needs. So where do we get the money? Well, you generate it out of profits. That's the only place we-we can't go back to the farmer or to the cooperative, because the money just isn't there. We can't go to the general market, the financial markets. So to generate this \$30 million dollars over the next six to eight years, we're going to have to make about \$5 or \$6 million dollars a year over and above our capitalization needs for replacement and updating.

And we have other EPA things that are ongoing. We're not complaining about them, they are necessary, we should do them. We're for clean air.

I had to sit here today and listen to some of the citizens, and I thought, you know, I'm sympathetic because I have a son who lives in Denver, and a grandson, and they are both asthmatic, so I see the other side of the picture very well, too.

I know it's hard for you to deal with all the various complexities of this rule-making process because you have the large refiner, the auto maker, the small refiner, the citizen, the government agencies of all the various entities that are involved. And it's not easy, and I'm not sure that there will ever be an easy way for you to get where you need to be, and we all know you need to get there. I simply ask for you to understand the needs of the small refiner. And our needs, while they are different from many other small refiners, I find that all small refiners have a lot of problems, and will have, in raising the capital to do what's necessary under these regulations.

I ask, do we have to go as fast and as far as we're going? Maybe we do. I don't tend to be an expert in that. I did talk to the gentleman about the bio-treatment. He says three to four years out. If we have to make the decision on where we go and we pick the wrong one, we're dead. We've got to make sure that for the time we're ready to sulfur down, that we're making the right decision, and we'll have enough trouble doing it, the way it is.

So I ask you to allow as much time as possible, do it in the most efficient and effective way, not only for the small refiner, but for automobile makers, the citizens, and the larger refiner. Take it all into consideration when you're setting your time frames, because time will be very important to the survival of the small refiner in the future of the phase-downs.

And when you're looking at sulfur in diesel, take into consideration what that also does to somebody who has just gone through sulfur and gasoline, because it will be a

double whammy, so to speak, when it comes along.

And I appreciate the opportunity to have made my presentation today, and if you have any questions I'd be happy to answer them.

OGE: Thank you. Ms. Michelle Robinson. Good afternoon.

ROBINSON: Good afternoon. I'm Michelle Robinson. I'm Senior Advocate with the Transportation Program of the Union of Concerned Scientists. We're a national non-profit organization that is a partnership of scientists and citizens working in, dedicated to advancing sound public policies in areas where technology is a key. And that's one of the reasons why we're here today.

One of the reasons I'm here today is that I'm getting ready to start a vacation, so I am not only pleased to be here today to have an opportunity to speak with you about this important rule, but for obviously other reasons, I'm going to be enjoying the beauty of this state and hopefully breathing the clean air in the Rocky Mountains over the weekend.

I'm here today to speak on behalf of our 80,000 plus members across the country, about 4,000 of which are Colorado residents. As you've already heard and are well aware, the reason that we're here today is clean, healthy air. Not only today, but for generations to come. And many of us have been working to reduce pollution from stationary sources, like power plants, and aggressively advocating for the development of cleaner, renewable energy sources in that sector.

But mobile sources, especially cars and trucks, have been given a virtual free ride for far too long, in our estimation. Despite 30 years of regulation and moving in a, what we think is a positive direction, cars and light trucks are still the largest single source of air pollution in the United States. These vehicles contribute more than 53 percent of national carbon monoxide emissions, 25 percent of national volatile organic compound emissions, 22 percent of national nitrogen oxide emissions, and in addition mobile sources are responsible for 42 percent of urban air toxics and 25 percent of greenhouse gas emissions. Major reduction in emissions from individual vehicles simply have not adequately kept pace with the increase in miles driven. And the market trend is toward more polluting light trucks.

American motorists traveled more than 2.5 trillion miles in 1997, and almost tripling since the mid-1960s. Over the next 30 years, miles driven is expected to double once again.

Furthermore, more and more americans are driving high-polluting SUVs and pickups, in most cases unbeknownst to them. In 1970 these vehicles only accounted for 15 percent

of new vehicle sales, and today one in two vehicles sold is an SUV, pickup or minivan.

 EPA's Tier 2 needs assessment which was released last year, and leading up to this proposed rule, left little room for debate, we think, on the need and ability to lower emissions from cars and light trucks. The Union of Concerned Scientists is pleased with much of the draft proposal. We applaud EPA's foresight and commitment to protecting public health by setting a relatively tight overall nitrogen oxide fleet average, by bringing the majority of light trucks under this average, and by requiring 30 ppm low sulfur gasoline nationwide. We urge the agency to stand by these reasoned, technically sound provisions, and to consider our recommendations for strengthening other elements of the rule.

And I just want to take a minute to lay out a couple of concerns we have in other areas of the rule. We will be submitted additional formal, more comprehensive comments to the docket, and those will contain more detailed analysis and recommendations.

First, just on the light duty truck question: Again, the EPA is doing the American people an important service in bringing light duty trucks under the Tier 2 program. As people are increasingly aware, current standards allow SUVs and light trucks to pollute from three to five times more than the average new car. UCS analysis shows that this light truck loop... that if this light truck loophole never existed, it would be equivalent to taking 40,000,000 cars off the road today. That is five times the number of cars sold last year.

There are few issues we'd like to raise regarding how light trucks are dealt with in the proposed Tier 2 program.

First, the heavier SUVs and trucks should be required to meet the same emission standards as other passenger vehicles sooner than proposed, in our estimation. We believe there's no reason to—there's no reason to believe that these models cannot meet the tougher standards sooner than 2009, and I would echo comments of some of the people on the earlier panels in this regard. We've looked at the model year 1999 certification levels for many of these vehicles, and evidence shows that even without additional controls, some heavy light trucks in the T-3 and T-4 categories are certifying at or near the ultimate .07 grams per mile in the Tier 2 standard.

Moreover, over 30 percent of the engine families are already certifying at or below the .2 grams per mile noxa interim standard that EPA will be requiring 25 percent of heavier light duty trucks sold to meet this standard in 2004.

While we recognize that the percent of engine families does not directly correspond to the percent of

vehicle sales, we question whether even the interim standard is going to push manufacturers to sell truly cleaner vehicles before the 2006 time frame.

Right now the majority of light truck models fall within the zero to 6000 pound category, we're concerned that the lower, that the slower phase in would prompt manufacturer to push border line trucks into the heavier categories.

In addition, we look forward to working with the agency on standards for the heaviest vehicles now on manufacturer drawing boards, which would skirt the Tier 2 program altogether. Development of these ultra heavy vehicles is a troubling trend, and we hopeful EPA will be addressing the air pollution implication of these vehicles in the near future.

Just want to spend just a second on the diesel vehicles, or the issues we have with regard to the structure of the rule.

Upon close inspection of EPA's proposed particulate standards and the bin structures, we do have some major concerns. While there's no disputing that total PM, particulate matter emissions, will decrease under the Tier 2 proposal from today's levels, we believe that that is not the only relevant comparative analysis. EPA in their Tier 2 analysis looks at a diesel penetration scenario, one that assumes fairly aggressive growth in the diesel light truck We've taken that and compared it to EPA's base line scenario where little or no diesel passenger cars enter the market, enter the fleet. This comparison shows a substantial increase in diesel PM emissions, assuming this rapid increase in diesel truck sales, that amounts to 50 percent of the truck market in 2010, in this scenario. Under EPA's rapid growth scenario, diesel PM 2.5 emissions in 2010 will increase to six times today's levels. Even recognizing that the agencies increased diesel sales sales scenario is aggressive, the potential for a greater public health threat than from higher than necessary particulate emissions in this case is enormous. There are indications that the auto industry is interested in outfitting their heavier SUBs and light trucks with diesel engines. In addition, the government industry partnership for the next generation of vehicles, PNGV, is focused primarily on development of diesel powered passenger car.

Therefore, our concerns regarding the increased diesel particulate emissions are well-founded. The health impacts of diesel exhaust have and continue to undergo extensive study, and in addition to the role of fine PM and exacerbating respiratory illness, there's increasing recognition of the carcinogenic nature of diesel exhaust. And we've seen that with the California Air Resources Board, International Health Bodies, looking at now categorizing

elements in diesel exhaust as being carcinogenic.

And also we know that EPA recognizes this threat. In EPA's draft diesel health assessment, identifying both lung cancer as well as several other adverse respiratory health effects, including respiratory tract irritation, and immunological changes, and changes in lung function as possible concerns for long-term exposure to diesel exhaust. So--okay, almost done.

Heavy duty highway and offering diesel engines as a group account for most of the diesel particulate emissions currently released into ambient air. And EPA is currently addressing ways to decrease the health risk associated with heavy duty diesel exhaust emissions. Why then does the Tier 2 proposal contain loopholes that would allow diesel toxicity to expand into an area where it doesn't currently exist?

We urge EPA to revisit the particulate bins and adjust the standards to a more health protective gasoline equivalent standard of .01 grams per mile.

I'm not going to go into my full statement on sulfur except to say that we strongly support the proposed requirements in the rule on sulfur, the 30 ppm nationwide, though we would like to see further reductions in sulfur content in gasoline and diesel fuel over time, we concur with EPA's assessment that the proposed Tier 2 standards can be met with conventional technology if gasoline averaging 30 ppm is available. Hinging future emissions reductions on achieving near zero sulfur levels we believe is unwise at this time. Again though we'd like to see it—the agency head in that direction.

We also do have concerns about the averaging banking and trading elements of the rule. Primarily our concerns are around the potential for large windfall credits. And we really want EPA to consider strategies to prevent auto makers from amassing windfall credits. And for getting credits for vehicles that are running on the higher sulfur fuel in the early years, discounting those credits.

Okay, let me just conclude by saying we believe that EPA was wise to structure the program after the California vehicle programs, however, we do believe that important differences remain in terms of the overall program benefits in the technology forcing nature of the programs in California, and the northeast. And therefore, we're going to continue to work with those states as they look at maintaining those, the tighter program.

And just to finally say, thank you for the opportunity to share with you some of our thoughts on the proposal. We are very encouraged by the proposal, and look forward to working with you to make it strong and effective in reducing the public health and environmental threats posed by auto pollution.

Thank you very much.

OGE: Thank you. I hope you have a good vacation here.
Mr. Greg Scott, good afternoon.

SCOTT: Yes. Good afternoon. My name is Greg Scott and I am with the law firm of Collier, Shannon, Well and Scott, and appear today on behalf of our client, the Society of Independent Gasoline Marketers of America, also known as SIGMA. I appreciate the opportunity to appear here today to present SIGMA's views on EPA's proposal to reduce sulfur levels in gasoline nationwide.

SIGMA is an association of over 270 independent gasoline marketers operating in all 50 states. Last year SIGMA members sold over 34 billion gallons of motor fuel, representing approximately 22 percent of all motor fuels sold in the United States. SIGMA members supply over 27 retail outlets nationwide and employ over 22--I'm sorry, over 220,000 workers.

SIGMA is strongly opposed to EPA's gasoline sulfur proposal. Given the fact that SIGMA members are not refiners, this position maybe surprising. The EPA noticed in the preamble of the proposal the reduced sulfur levels will have little or no impact on independent gasoline marketers. SIGMA directly disputes this assertion for the reasons set forth below. This proposal will have a devastating impact, in our opinion, on the independent gasoline marketers in many areas of the nation.

SIGMA will explain the reasons for its opposition to the proposal in detail in written comments we will submit in the near future. However, in the short time permitted today, SIGMA would like to raise three important concerns. First, the gasoline sulfer proposal ignores the important alternative regulatory plan offered by the nation's refining industry in favor of a one-size-fits-all sulfer reduction strategy.

EPA supports the proposals set forth by the National Petroleum and Refiners Association and the American Petroleum Institute for a regional dual fuel approach to gasoline sulfur reduction. EPA's proposal will impose costs on refiners, marketers, and consumers that are not necessary to meet air quality standards across the nation. To the contrary, SIGMA posits that EPA should regulate only where necessary to meet existing air quality standards.

Second, SIGMA urges EPA to modify its proposed flexibility for small refiners to include all small refineries with capacities of 75,000 barrels per day or less. SIGMA is deeply concerned that without this modification, we will soon see in the 49 states the devastation of small refineries and independent marketers that we have witnessed over the last 15 years in California. To foresee the future of gasoline in the rest of the nation under this proposal, we

need only look at the current situation in California. Small refineries have been driven out of business and small gasoline refineries have almost ceased to exist. Independent marketers, generally the most price-competitive segment of the marketing industry, have generally ceased to exist. This lack of competition from independent marketers and alternatives sources of supply from small, independent refiners has led to the highest retail gasoline prices in the nation in the State of California.

If EPA does not modify its proposal, as SIGMA suggests, we will witness many small refiners and small refineries closing their doors. It does not matter whether the owner of these small refiners is a large company or a small company. If it is not financially prudent for a refining company to make investments necessary to reduce gasoline and sulfur levels drastically, then that refinery will be closed. It makes no difference to SIGMA members or, quite frankly, the consumers whether it is Amoco's 52,000 barrel per day refinery in Salt Lake City that is closed or Sinclair's 22,000 barrel per day refinery in Casper, Wyoming that is closed. A supplier in that region will cease to exist, the marginal gallon of gasoline that independent marketers rely on to compete with the integrated oil companies will be gone and retail prices to consumers will escalate because of decreased competition.

Third, SIGMA strongly urges EPA to modify its proposed enforcement strategy to mandate compliance at the refinery gate and/or at the water's edge. Compliance with the proposed gas and sulfur reduction should be enforced in much the same way as the existing conventional gasoline antidumping program. There is no reason for EPA to propose downstream sulfur testing, record keeping, and reporting requirements on marketers if every refiner and every importer is required to test and report on every gallon of gasoline produced or imported. Gasoline currently is commingled through the distribution system without regard as to whether it is produced by a large or a small refiner or whether it's produced domestically or imported. Attempting to track product from a small refinery or an importer will be virtually impossible and we believe unnecessary. If every gallon of gasoline produced or imported meets the refiner's or the importer's sulfur specification, then further downstream testing is irrelevant, costly, and unnecessary.

SIGMA appreciates the opportunity to present its views. I'd be happy to answer any questions you might have.

MS. OGE: Thank you.

Mr. Stan Dempsey, good afternoon.

MR. DEMPSEY: Good afternoon. Welcome to Colorado.

MS. OGE: Thank you.

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MR. DEMPSEY: I work for the Colorado Petroleum

Association and the Colorado Petroleum Association was born on June 1 of this year. Colorado Petroleum Association is an offshoot of Rocky Mountain Oil & Gas Association which many of you may be familiar with, but I mention that because we look forward as CPA to working with EPA and others on fuel and air quality issues, as well as other environmental issues, and we wanted to introduce ourselves today. We recently worked with our member refiners to implement a new half pound reduction of re-vapor pressure for helping the Denver area meet the ozone challenge that we're concerned about here in Colorado and hope that program works.

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We support the comments made by Conoco and Diamond Shamrock, as well as Sinclair, in their ability to express many of the technical points that were made by those companies in their comments. There are really a couple of points that I really would like EPA to consider very strongly. One of the points was just mentioned by Mr. Scott, the previous testifier. And, that's the issue of the definition of small refinery. I'm not quibbling with the actual definition, but the issue of who is left out of that definition and what the impact of the rule will be upon those refineries, such as the two that exist in Colorado who are relatively small refineries. They don't fit the definition and those individual refineries themselves are viewed as assets and they need to be strong-performing assets for their companies and those companies will have to make decisions such as do we make improvements to those refineries or do we make other arrangements and we pipeline more product into this market which is the Denver market. We have some significant concerns about the fact that there will be significant capital expenditures required and there are approximately 350 people who are employed by those two refineries.

That's the reason that we come to the table supporting the API approach of a regional sulfur approach. We believe that when an area like the Denver metro area or Colorado and the western states are meeting the national ambient air quality standards, are very close to the situation with Denver with a couple of pollutants, that that makes the case for a regional approach so that the current suppliers of gasoline can have the time to ramp up to the EPA We don't believe that there needs to be a onerequirement. size-fits-all approach, particularly in the Denver area where there has been a significant amount of work done by Colorado and the Regional Air Quality Council to come up with individual approaches like the RVP half pound reduction that was developed by a consensus and then implemented without having it be a national approach. We think those approaches can be as innovative and as successful as a national approach.

Finally, we would consider EPA to review the proposal in light of the new Court decision that was handed down from the Appeals Court and fully understand the implications of that Court decision and how it works with this proposed rule.

Thank you very much for the opportunity to introduce ourselves, first of all, and we look forward to working with you with this rule.

MS. OGE: Okay, thank you.

Mr. Roger Pelot?

MR. PELOT: Hello.

MS. OGE: Hello.

MR. PELOT: Thank you.

MS. OGE: Good afternoon.

MR. PELOT: It's Roger Pelot and I apologize for the late entry. I was stuck out on I-70 for more than an hour because of what appears to have been a serious accident just east of Georgetown. So, I would have been here a lot sooner.

On the sheet, it says I am the Mayor of Dillon which is true, but actually I am testifying on behalf of the Colorado Association of Ski Towns; otherwise known as CAST. CAST consists of a membership of 22 communities directly and indirectly impacted by year-round activities of ski resorts. CAST is not affiliated with any ski resort, but it is an organization of local government officials representing citizens. CAST members meet on a regular basis to discuss issues and solutions that are the direct result of being in a close geographical relationship to ski areas.

We all know that in order to have a ski area, we need mountains, cold weather, and moisture. This typically means very high elevations. Our communities and related ski areas range anywhere from 7500 to 10,000 feet in elevation. As an example, my town's elevation is 9,156 feet above sea level and we are within 15 miles of five ski areas. And, as we are all aware, oxygen levels are reduced at those elevations which results in less efficient combustion, and therefore, dirtier air.

Because of the resort environment, we are seeing amenities in our communities that are attracting more individuals to the mountains to live year-round including senior citizens who are choosing to retire here. These people enjoy year-round outdoor sports such as downhill skiing, cross country skiing, snowshoeing, biking, hiking, running, roller blading, and just plain old walking. People are choosing the mountains for this kind of living to get away from larger crowded communities in order to enjoy the beautiful views and clean air. And, as a result, if you saw today's Denver Post, Mountain Growth Starting To Fray Nerves. So, growth is really an issue in mountain communities.

According to a survey conducted in 1996 by the

Northwest Colorado Council of Governments, the senior population in Summit County alone is growing at a higher rate percentage-wise than any county in the state. This is a trend that is also occurring throughout the Rocky Mountain area. As a reminder, when poor air quality becomes a concern in the community, seniors are advised for health reasons to stay indoors.

This, then, leads us to the issue at hand, excessive pollution of light trucks, mini-vans, and SUVs. As mentioned before, it is well-documented that combustion at higher levels is not as clean as at sea level due to lower levels of oxygen. Therefore, our vehicles emit more pollutants in our communities which causes us to be extremely concerned about air quality. As a result, most of our communities have banned wood burning fireplaces in new construction, requiring gas only units. Because of the air pollution created by the use of sand and salt for snow removal and traction, many communities have begun to switch to magnesium chloride as an alternative solution. But, the one area we can't control is the amount of pollution being emitted from vehicle tailpipes.

With the tremendous amount of growth and the daily influx of visitors to our communities, we have great concern for our air quality due to the increased use of pickup trucks and mini-vans and, in particular, SUVs. Every day these vehicles continue to increase because people feel it gives them the security necessary to get around the mountains in the winter. That's also a debatable issue. I recently asked a lady why she drives an SUV and her response was, "I'd be afraid to leave my house in the winter if I couldn't get around in my four-wheel drive." So, it's ludicrous to suggest that these vehicles are being only used as light trucks when, in fact, we all know that they're being used as passenger cars.

Let me give you some examples of how this is impacting our communities. It seems to me I read recently a newspaper article that said SUVs either make up or are expected to make up 28 percent of new car sales this year. This is obviously one of the reasons that SUV pollution is a critical issue. But, let me share with you some real numbers in our community.

I took a sample of vehicles in our office and the two adjacent offices in our building. The number of employees is 15. There is no requirement that these vehicles are needed to haul around supplies or materials, just people. Of the 15 employees, nine, or 60 percent drive pickup trucks or SUVs. I took a look at our own town council's makeup which is seven members including me. Five of those seven or 71 percent drive pickup trucks, mini-vans, and SUVs. In my neighborhood of 12 year-round residents, there are 12

vehicles in this category, or 100 percent. This is not to imply that there's an SUV in every garage because my neighbors across the street have two SUVs and one pickup truck. Yesterday, I checked one of the town's parking lots and discovered 25 of the 45 vehicles in the lot were either pickup trucks or SUVs for a total of 55 percent. So, as you can see, we've already exceeded national numbers on a daily basis.

But, this example only addresses the year-round environment. So, what about our annual visitors? And, I think also in this morning's Post, it mentioned something like 11 million skier visits a year. Every year, we break records for cars passing through the Eisenhower Tunnel and our Governor wants to widen the interstate to the mountains in order to make the trip more easier and more convenient. As a result, our towns are having traffic problems due to congestion and the lack of parking. And, guess what the vehicle of choice is for these visitors? SUVs. And, if you happen to fly into DIA and rented a car, you probably noticed row upon row of SUVs and mini-vans parked in the rental lots. At least, they were there when I flew out of town a couple of weeks ago. Where do you think those vehicles spend most of their time on the road? It's driving to and from the mountains and ski areas and in driving around our communities contaminating our air. When you add this influx of vehicles to the already heavily populated year-round pickup truck, mini-van, and SUV environment, the resulting air quality is definitely being compromised with potential impact on our health, the very reason we moved to the mountains in the first place.

And, lastly, I have attached a copy of a letter sent from the state Air Pollution Division to our CAST administrator citing a 1955 (sic) Rocky Mountain National Parks survey where 92 percent of their visitors rated natural scenery as their most important attribute followed closely by clean air at 87 percent. These related items were the number one and number two most important features rated by visitors.

So, in summary, CAST sees EPA's Tier II proposal as an important step towards cleaning up and protecting the air and our mountains. We would like to see the EPA move forward with this proposal and work to close the loopholes that currently exist so that all passenger vehicles including SUVs and really large SUVs meet the same tailpipe standards in the same time frame as other passenger cars. The only concern we have are that the time frames tend to be somewhat long when you consider the high percentage of these vehicles already polluting our mountain communities.

Thank you.

MS. OGE: Thank you. Mr. Pelot, I have to add in addition on data point to your statistics. I am one of the

many visitors that come here every year for the past 13 years. I have nothing against SUVs. I think they're wonderful (inaudible). My preference is to just drive a car, but I have two teenage daughters and, I'll tell you, when we come here, we do rent. Nine out of the 10 times we have rented an SUV. So, I'm very sympathetic to the cons that you're making.

Do we have any comments for the Panel?

MR. GILLINGHAM: May I make a comment from the audience? My name is Jim Gillingham. I'm with (inaudible) Diamond Shamrock.

MS. OGE: Could you, please--would you like to make a statement? I will call you.

MR. GILLINGHAM: Well, it's in response to the presentation that was just made.

MS. OGE: Why don't you come forward? Take a microphone so we can record your statement.

MR. GILLINGHAM: I'm Jim Gillingham from Ultramar Diamond Shamrock and I'm reading from EPA's emissions facts as of the standards for 1994. The NOX standard for cars is 0.6 grams per mile of NOX. In 1994, the standard for NOX for SUVs, pickup trucks, and mini-vans is 0.6 grams per mile. They're the same standard. That's for under 6,000, not in excess of 6,000.

MS. OGE: Your statement is accurate. The SUVs, the heavier trucks, 6,000 pounds to 8500 pounds, are the ones that are the most polluting vehicles. They pollute two times—five times more.

MR. GILLINGHAM: Yes, but if you look at those vehicles which are parked on the parking lot at DIA, I don't think you'll find any over 8,000 pounds. I personally drive--6,000, I'm sorry. 6,000 pounds. I personally drive the large extended Econoline passenger conversion van made by Ford. It weighs 5600 pounds.

MS. OGE: Thank you. I'd like to thank all of you for coming forward and expressing your interest in this program. Thank you very much.

We will continue with the next panel. We have a number of individuals that have signed earlier with the receptionist and they're interested in testifying. So, I would just read the names, and if you hear your name, please, come forward. Mr. Kelsey Haviland, Ms. Nissa Maddox, Mr. John Zazenski, Mr. Richard or Ms. Bonnie Rader--and I think Ms. Bonnie was here earlier with us--Mr. John Wade, Mr. Walter Jessel, Ms. Susan Castellon, Noelle Stenger, Ms. Maggie Fox--and, I think, Ms. Fox was with us earlier--Ms. Roxanne Venard, LaVon Martin, Ms. Catherine O'Grady, Ms. Jennifer Lee, Mr. Paul O. Nelson, Mr. Ken Manley, Mr. Graham Hill, Mr. David Scott Silverburg, Mr. Tom Platt, and Ms.

50 Ellen Lundquist.

 If I have not mentioned your name and any of you are interested in testifying, please, come forward?

(Pause.)

MS. OGE: Good afternoon. We'll start with you? SPEAKER: First off, I would like to say that I decided to come last night at 9:00 o'clock. So, this is very impromptu. I don't have any facts or studies that I will present, but I do have personal experience and opinions that I think need to be heard and considered.

Driving down from Evergreen today, I took some car samplings just as our panel member did. I counted five cars at each, I guess I'd say, 20 minutes on my drive down here and two out of five cars were small compact cars; the other three were SUVs, mini-vans, or light trucks. I did that about seven times. And, it turned out to be an average of two out of five were small cars.

And, I haven't traveled very much in my life and I haven't paid attention to much things except the last couple of years. But, I do notice in Colorado that there are lots of SUVs and light trucks and mini-vans, as well. Like our last panel member was saying, we have less oxygen here and that creates more of a problem. We have beautiful scenery which attracts more people. More people, more cars, more distances to drive equals more tail pipe emissions and smog. The more people who come here, they come here for one reason; the beauty and the healthy, active lifestyle. I remember reading that we did have, I guess, the most active citizens here in Colorado or we were rated pretty high on the scale of healthy citizens and active citizens compared to the nation. If we continue to ignore the importance of the car emissions, we're going to completely destroy what people are moving here And, I think it's important. for.

We cannot control what people are buying. We cannot control what consumers are wanting. But, we can control what these cars are putting out. Until consumers are educated on what sort of cars they need or what kind of cars are suitable for their lifestyle, as well as for the environment, we'll have to just do with what we can. You guys are doing what you can with EPA standards in the Tier II. So, I would really hope and beg that you go ahead and do this. Tie up the loopholes, push this as strongly as you can. We have to meet a balance between our development, our growth of the nation, of the country, of the state, of the world, and how much land we need for survival, and how much clean air we need for a health lifestyle.

So, this is one step, one step of many, and I hope this will be a successful step versus a failure. There have been many successful steps in the past couple years and I hope that this will be another one. The harder we try and the more we see the importance of what we have to do in order

to keep our world inhabitable, the better it is. I'm here as a citizen and out of personal interest. I'm not here for any company or gas station or activist group in specific, but I'm here as a citizen and a concerned person who is growing up in a world that's falling apart. So, I hope that you can take my comments into consideration.

Thank you.

MS. OGE: We will and thank you for coming.
Ms. Maddox?

MS. MADDOX: Good afternoon. Let me just say I do appreciate your patience and your attention. I haven't sat through the whole thing, but it's late in the day and you guys can do--pay attention as good.

My name is Nissa Maddox and I represent the Colorado Environmental Coalition. So, I've got prepared comments that I did submit on their behalf which I will shorter because I'd like to add a personal statement, as well.

But, for the record, the Coalition is a 35-year-old grass roots, non-profit organization. We represent over 50 organizations here in Colorado, as well as thousands of Coloradans. And, together, we advocate for Colorado's environment and for our quality of life. You know, it has been said that we are experiencing one of the fastest growth rates in our history. We are expected to be at over 5 million people in the next 20 years. I'd just like to concur with her comments that as we grow, we will see more cars and more trucks and more SUVs on the road.

I definitely commend the EPA for their work on looking to curtail automobile pollution and I can tell it's not an easy fight. I would like to also say that while you're doing great things, I agree that there are some loopholes. First of all, no special treatment should be given to the bigger, dirtier SUVs. As written, the EPA's proposal right now doesn't require the cleanup of the largest and the dirtiest Sport Utility Vehicles on the market and it gives them longer before they have to comply. And so, it actually does give an incentive for automobile manufacturers to make and market the larger polluting SUVs.

Again, diesel vehicles, there should not be--they should have the same treatment as the rest of the automobiles. You heard before from health professionals that diesel is not good. So, the more we can do to bring their pollution standards into compliance, the better off.

And, also, cleaner gasoline should be available earlier. When the cleaner cars some out in 2004, they should have access to cleaner gasoline. So, I would like to see that.

On behalf of the Coalition, again I appreciate the opportunity to speak. As a Native Coloradan, I feel very

much in the same sentiment as this young woman here today. I 1 have grown up in Colorado and I have seen it change dramatically, just the growth and it's in the last 10 years. 4 I'm not that old, I admit, but in my memorable lifetime, 5 things have changed. You know, I've heard the technical 6 assessments. I know that you've heard the technical assessments in, you know, terms that I don't pretend to understand, but the most important thing is that it's about 7 8 9 clean air and it's about health. We do know that air 10 pollution affects people's health. It affects their ability 11 to breathe and then sometimes it can be deadly to live in 12 high pollution areas. And so, while you're weighing the cost 13 of, you know, corporate responsibility, the bottom line is 14 that you can't pit that against one person's ability to 15 breathe.

So, throughout all the technical data, there is no easy solution, but the bottom line is we're trying to protect the health of the public and that's, I'm sure, your utmost goal. So, I would like to see Colorado remain clean, remain beautiful, know that my grandchildren can grow up and not have to worry about asthma and air pollution. It's probably not going to be the case, but the more we can--you know, the more steps we can take now to make a difference, the better. And so, I encourage you to put out the strongest standards possible. There will be, you know, some rehash from that, but it's about our health. So, do what you can.

Thank you.

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MS. OGE: Thank you.

Ms. Jennifer Lee, good afternoon.

MS. LEE: Hi, thank you for coming here today so that we can voice our concerns.

I am an intern at the American Lung Association from the University of Northern Colorado, College of Community Health Education, but I come today as a citizen and a person who suffers from asthma and other chronic sinus problems. I recently moved to Denver from Greeley, Colorado about three weeks ago and, because of our poor weather situation and the amount of pollution that I've been exposed to here since I've moved, I've already made one trip to the emergency room. And, I can honestly tell you--I don't know if any of you have ever been to a hospital on the bad ozone days, but they are just flooded with numerous people who, when you sit in the room waiting to be called and talking with your neighbor, people say, oh, today is such a bad ozone day and the pollution is just awful. You know it seems to be a consistent response among most of us asthma sufferers. Of course, I can only speak for myself, but I can definitely tell when these days are bad. And, the drastic number of SUVs and those types of vehicles that are now in Colorado because of the mountainous areas are just greatly increasing

the amount of pollution that is here that I feel physically and emotionally every day.

I don't mean to get all emotional, but it's one of those things when you can't breathe, it's a hard thing, you know. And, I just ask that you guys really seriously consider just at the minimum tightening up the loopholes that allow these vehicles to slip though. I moved to Colorado with the hopes of coming to a clean air state. It's very much publicized as one and I've found the exact opposite. I apologize for getting all teared up here. That wasn't my intention.

So, I just thank you for allowing me to come here and express to you personally my experience with the air pollution and air quality problems that are, I feel, at least partly responsible and directly related to these vehicles.

Thank you.

MS. OGE: Thank you, Ms. Lee.

Ms. Catherine O'Grady, good afternoon?

MS. O'GRADY: Good afternoon. Thank you for allowing me time to testify and thank you all for coming here to hear this testimony of the group today.

I work for the Visiting Nurse Association. am on the Board of Directors for the American Lung Association. The VNA has been in the metro area doing public health nursing for 110 years. I thought it would be interesting just to give you a few case studies of what we are seeing in the field. I approached one of our nurses who is asthmatic who also works in a program dealing with asthma patients. And, she said--I'll keep this short--she said I know on days when I can see the smog when I get up and the bad weather is here that I will get two or three additional home visit requests that day from patients who just can't breath anymore and needs some help adapting their She said there was one particular infant, a medications. little Hispanic girl by the name of Ario (phonetic), that she starts wheezing and then is put on increased steroids because the patients (sic) have been taught how to deal with her medications when she gets one of these attacks. She usually gets sicker and ends up in the emergency room. As soon as the weather clears, she said that it's very noticeable; everyone's breathing clears.

So, I just will present that to you. We know that on bad days that also we have additional emergency room visits. We have had to institute a new health care plan, which I know we're all concerned about rising health care costs, but with United Health Care we set up a new plan and it's called the Asthma Action Plan that went into effect in December to help them avert emergency room visits because they are extremely costly. If any of you have any asthmatic children, which I do, I know that anywhere between \$500 and

\$1,000 is nothing. That's just to walk in the door until you get through with your treatments and the tests and all of that. So, what this program is set up to do, because the hospital stays now are much shorter, there's very little patient education done even at some of the better hospitals, I'm sorry to say. So, these patients are coming home. They're over the acute stage, but they also are having problems trying to regulate their medications and finding the triggers that are triggering them. And, certainly, air pollution is one of those.

We've had 44 referrals since the beginning of December. Of these, a third have been appropriate and we have followed up on those. We have not had one hospital readmission since that time. Now, part of that is tied into education because on the bad pollution days we advise patients not to go outdoors and exercise. We've advised them to get a treadmill, and certainly for certain socioeconomic groups, that's not feasible, nor is it feasible for them to go to a gym. So, there always will be those problems with us. We know from a third point that we are seeing a dramatic increase in childhood asthma. I've talked to physicians at National Jewish. We've seen some of the latest research that they're doing over there that's not been published yet. And, they don't have clear cut answers always either.

I know from personal experience, I have a grandchild that was a preemie which is a high risk for lung disease and also some genetic factors involved. He is now three-years- old and is asthmatic. It happened very suddenly. We were out to dinner and he had an upper respiratory infection and my son turned to me and he said, mom, do you think we ought to take him in? It was about 7:00 at night and I said, well, probably if he'll worse, it will be at night. So, it might be better to go in now. So, I took the other little granddaughter home with me and they were at the emergency room until 2:00 in the morning. Fortunately, they did not have to hospitalize him, but he is now on nebulizer treatments.

We know on a fourth item that there is certainly many people who are not insured and many low income are not insured. That precludes some of them from getting some of the health care teaching through HMOs or through other means. In closing, we know that some of the people in this program have been able to do dramatic things. The average age of these patients is in their 30s and 40s that we are seeing. So, these are young productive adults in society that are capable of working, that want to work, that because of health care problems are having a great deal of difficulty doing that. We've been able to get people exercising up to a half hour that could not tolerate any exercise, at all.

And, if any of you are going to be around next

month in Denver, I would invite you to the Champ Camp. 1 This is a wonderful program in its 20th year that American Lung puts on for severely asthmatic children, children that have 4 never been to maybe the mountains because they are so 5 allergic to everything they can't go. With the volunteer 6 staff of physicians and nurses, these children are actually 7 They're doing things they've never going to the mountains. 8 donee before in their lives like swimming and mountain 9 climbing. We had an interesting scenario where one of the 10 parents called up and talked to a doctor at Champ Camp and 11 said, you know, there must be something wrong there because 12 my child lied to me. And, the physician said your child 13 lied? And, she said yes. He called home and said that he 14 was rock climbing and she said my child can never do anything 15 like that. The physician turned to her on the phone and said 16 your child is not lying. He is climbing rocks and doing what 17 he told you he was doing. It is a wonderful program and I 18 would invite you out to see that. 19

But, the key to this whole problem is prevention and I think that lies in your hands today. Thank you for allowing me time to testify.

MS. OGE: Thank you.

Mr. Zayach?

MR. ZAYACH: Yes.

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MS. OGE: Good afternoon.

MR. ZAYACH: Thank you. Jeff Zayach, Boulder County Health Department, Environmental Health Program.

First of all, I'd like to say that being probably the last speaker, I think, it's also going to be, I think, the shortest one you've heard yet. So, that's probably good.

MS. OGE: We have one more.

MR. ZAYACH: Oh, okay.

MS. OGE: It doesn't have to be that short. Okay, go ahead?

MR. ZAYACH: This proposal couldn't come at a more important time for us here in Colorado. Our state's population growth and vehicle miles traveled are skyrocketing. I'm going to speak more from a local perspective here, although I realize this is definitely a national, regional, state, and local proposal. I'm going to speak more from the local perspective.

Boulder County's 1998 population of 273,000 people is projected to skyrocket to 403,085 people by the year 2020. To add to this growth concern is the fact that people are driving more and farther than ever before. The traffic volume today on Boulder's six major corridors are a total of 146,800 vehicles per day and that number will increase to 272,900 vehicles per day in 2020. This represents nearly a 50 percent increase. The increased population growth and vehicle trips are reflected in Boulder County's seven ozone

exceedences during 1998. When we look at the vehicle trip and population growth projections over the next 15 to 20 years for Boulder, we are concerned that we will not be able to attain the ozone standard without the implementation of this proposal.

We have made small strides with voluntary programs, but have not been able to get commuters out of their cars the way that we need to in order to see significant gains in air quality. It appears that population growth, increased vehicle miles traveled, and skyrocketing vehicle trips will outpace any voluntary alternative transportation programs which further strengthens the need for this proposal.

Finally, as all of you know, under the Tier I standards, the Sport Utility Vehicles, mini-vans, and pickup trucks are allowed to pollute up to five times more than cars. Under Tier II, those same vehicles which represent approximately 50 percent of all the passenger vehicles sold will be subject to the same standards that apply to cars. We don't believe the Sport Utility Vehicles, mini-vans, and pickup trucks should be allowed to meet a less stringent standard than the rest of the auto industry.

Our perspective in Boulder County--and this represents both the Boulder County Health Department and the Boulder County Commissioners--is that the new standards should include the heavy, above 6,000 gross weight vehicles, as well. We have submitted more in depth comments regarding this proposal, as well. We definitely applaud EPA's work in getting this proposal through and fully support it.

Thanks.

MS. OGE: Thank you. Thank you all for coming and sharing your views with us and thank you for the supportive words and encouragement. Thank you, Haviland, for taking your own personal time with our prepared remarks and comments shared with our prepared remarks and coming to share with us all your views. Thank you, very much.

MR. HAVILAND: Yes.

MS. OGE: And, we do have one, maybe more than one, individuals. I'll call Ms. Lisa Campbell to come forward. Hi. And, I think she has children with her. You can bring them along.

MS. CAMPBELL: Thank you.

MS. OGE: Yes, please, go ahead? What a wonderful way to conclude this hearing with the youngest generation.

MS. CAMPBELL: Thank you. You've very gracious. I appreciate your letting me speak.

I'm Lisa Campbell. I'm here on behalf of (inaudible). We were--

MS. OGE: Lisa, would you like to have a seat? Your sons can sit down. Okay. But, we need the microphone so we can record your comments.

MS. CAMPBELL: My husband and I were transferred to Colorado or we were offered the transfer to Colorado, but we were concerned because of the image we had with the "brown cloud", you know, the results of all the pollution that Colorado was known for and we have an asthmatic son. So, I just want to restate, which I'm sure you all know, professionals are affected by the negative. You know, city, community planners are affected by that negative attitude that people have about Colorado and I think that it will be beneficial for businesses, as well as individuals, to try and clean up the environment. Everybody knows that. I guess, it goes without saying.

But, my other point is that asthma is the leading cause of keeping children out of schools. It's not pneumonia, it's not flu anymore; it's asthma and it's on the rise. And, I just feel it needs to be stated that it's affecting our children's education and the community, as well.

So, I just want to state support for the stronger laws. I applaud what you're doing already. I recognize that it's already a beneficial bill as proposed, but I just wanted to state that very personal aspect.

MS. OGE: Thank you for coming. Thank you for bringing your sons with you.

MS. CAMPBELL: I didn't realize it was going to be quite so quiet in here. Thank you very much for your time and your effort.

MS. OGE: Thank you. Bye.

And, Ms. Susan Castellon? Good afternoon.

MS. CASTELLON: Good afternoon. Susan Castellon with 20/20 vision. On behalf of our over 10,000 members nationwide and our over 500 members of Colorado, I would like to express my support for EPA's commitment to protecting the public health and the health of our environment and for taking steps needed to insure that the next generation of vehicles on the road are truly clean.

With over 207 million automobiles registered in the U.S. traveling 2.6 trillion miles annually, auto pollution is one of the largest sources of air pollution. As vehicle use grows due to sprawling population growth, asthma rates are also on the rise. More people than ever before are vulnerable to the severe health impacts of air pollution. Children, the elderly, and those with respiratory illnesses are most at risk. While we may not be able to significantly reduce the number of cars on the road, the EPA's Tier II proposal will help strengthen auto emission standards to insure cleaner cars and cleaner air.

Specifically, our members support the following key elements in the Tier II proposal. Requiring new cars and light trucks to emit 80 percent less smog creating pollution

than today's cars. Setting the same tough standards for cars, SUVs, and light trucks. Requiring low sulfur gas to be sold nationwide. EPA estimates that the Tier II standards combined with low sulfur gasoline requirements will have the equivalent effect of taking 166 million cars off the road when the proposal is finally implemented.

However, 20/20 Vision feels that there is improvements that need to be made to strengthen this proposal further. There should be no special treatment for heavier vehicles. The 10 year phase-in schedule for these vehicles is too long. There should be no special treatment of diesel technologies. The phase-in period for low sulfur fuels should be faster. Low sulfur gasoline needs to be adopted nationally at the same time as new emission standards. There should also be increased incentives for advanced technology vehicles.

Since this decision will affect our air quality for decades to come, we need the strongest possible standards now that will protect our health, our children's health and our environment. Tier II is a very strong step forward and we thank the EPA for their leadership.

MS. OGE: Thank you for coming forward.

Do we have any other individuals interested in testifying?

(No response.)

MS. OGE: No. Well, this concludes today's public hearing.

(Whereupon, at 5:25 p.m, the meeting was adjourned.)